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POPULATION TODAY

Vol. 14, No. 10 October 1986

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FROM THE EDITOR'S DESK

The Marriage Scare (continued). Last month *PT* covered a recent study that terrorized countless never-married women over 30 by producing statistics that gave them very slim chances of marrying.

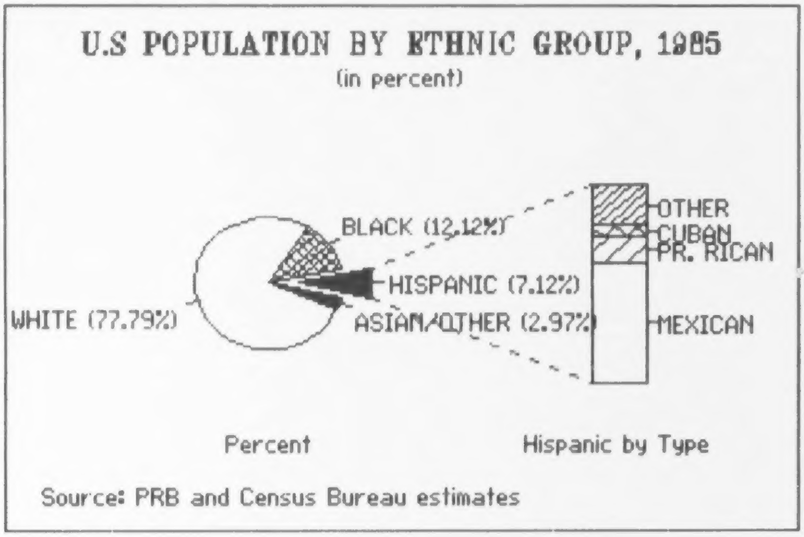
Now there's a new study. And while this study's estimates of women's chances of marrying have been less publicized, many women are bound to find comfort in them. Jean Moorman of the Census Bureau decided to calculate women's chances of marrying using the standard model, rather than the parametric model used by the Ivy League researchers whose statistics worked the media into a frenzy.

Her results: 66 percent of 30-year-old never-married college educated women will marry, over three times the frequency found in the other study; 41 percent of 35-year-olds will eventually marry, as will 23 percent of 40-year-olds. Further, according to Moorman's estimates, 11 percent of never-married 45-year-olds will find themselves at the altar.

But what do these numbers actually mean for women? Which estimates are more reliable? Who cares? There are exceptions to every rule, and women – or men – who are faced with disheartening statistics should simply decide that they are exceptional and that the statistics couldn't possibly apply to them. That's what we do with everything else, after all.

– Janine Adams
Associate Editor

SPEAKING GRAPHICALLY



U.S POPULATION BY ETHNIC GROUP, 1985
(in percent)

Source: PRB and Census Bureau estimates

Increase your productivity! That's why microcomputers whir like vacuum cleaners on all our desktops. Of course, they really do perform many data-processing tasks with awesome efficiency. (For example, in two minutes a single machine can lose more data than 500 workers working full-time for an entire year.)

Producing statistical graphs is another special forte of these wonder boxes. The above was produced with the "Twin" (Mosaic Software), a clone of the ubiquitous Lotus 1-2-3 integrated spreadsheet program. While Twin's graphs ultimately exceed Lotus's in quality, getting them just right requires considerable time investment. (If only I could make that "Asian/Other" legend a little smaller to miss the bar. . . . Maybe I should use a different typeface for the source note. . . . Why in the world won't the program accept one-decimal-place percentages? . . . etc.)

POPULATION TODAY

VOL. 14, NO. 10 **October 1986**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States, printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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Counting the Uncountable Homeless

Janine Adams

America's homeless (whether they number 250,000 or 2 million) represent a major assistance challenge

The United States is one of the richest countries in the world, and the standard of living enjoyed by the majoritity of its population is, by world standards, luxurious.

Nonetheless, 33.7 million people in the U.S. lived below the poverty line in 1984 (14.4 percent of the population), according to U.S. Census Bureau estimates. But that includes only those people the Census Bureau can count. People with no residence are not included in the surveys the Bureau takes between the decennial censuses.

As cold weather approaches, concerns about the homeless tend to resurface. It is no secret that in many of the country's shelters, beds are not numerous enough to accommodate those without homes. And for those who are turned away from the shelters or for whom the street seems the only answer, cold weather can be truly life threatening.

Counting the Homeless

The homeless represent a demographically nebulous segment of the population, one for which data are hard to gather and less than reliable. They have no homes at which they can receive pollsters, and those who sleep in shelters are generally transient, making them very difficult to enumerate.

But various individuals and groups have tried to overcome these obstacles in an attempt to count the homeless. As might be expected, their estimates vary widely. For example, in 1982, the Washington,DC-based Community for Creative Non-Violence (CCNV), an advocacy group for the homeless, estimated the U.S.'s homeless population to be at least 2 million, a figure that was widely quoted in the media. Then in 1984 the U.S. Dept. of Housing and Urban Development (HUD) came out with its own set of estimates. According to the HUD report, the homeless population totaled 250,000 to 350,000 in 1983, well below all previous estimates.

Critics of the U.S. government's response to homelessness (including the CCNV) accused HUD of trying to play down the problem of homelessness so it would not reflect poorly on the Reagan Administration.

For its part, the Census Bureau has established procedures to try to include as many of the homeless population as it can in the decennial census.

> Critics of the government accused HUD of trying to play down the homelessness problem

In 1980, on what was known as "Mission Night" (or "M-Night") enumerators were sent to bus stations, flophouses, or other low-cost shelters looking for the homeless. In addition, the Census Bureau has what it calls the "casual count." Over a period of a few weeks enumerators scour city streets looking for places where people might congregate, such as parks, check-cashing facilities, and welfare offices. Using these two procedures, the Census Bureau counted 50,794 people in "low cost transient quarters" in 1980.

Recent Estimates

Despite the criticism aimed at HUD's 250,000 to 350,000 estimate, a recent study gives some confirmation to those figures. In September 1986 the National Bureau of Economic Research (NBER) issued the results of a study by Harvard University economist Richard B. Freeman which concluded that HUD's figures were roughly correct: The study, taking into account the continued growth of the homeless population, estimated their 1985 numbers to be 343,000 to 363,000.

Freeman and his associate Brian Hall interviewed 516 homeless persons in New York City, including both shelter- and street-dwellers. Eighty-one percent of the homeless persons they approached agreed to give interviews. Then, using a mathematical formula, they established a ratio of homeless persons to the number of people in shelters of 3.23 to 1. Using that ratio, they extrapolated from HUD's 1983 survey of shelters to come up with a final figure of 279,000 homeless persons for 1983.

The study concluded that homelessness is a relatively long-term state for homeless individuals, who average 6 to 8 years without permanent shelter. Overall, the study suggests that economic recovery alone will not solve the problem of homelessness and that without changes in the housing market or in the economic position of the very poor, homelessness in the U.S. will continue into the forseeable future.

Soon after its release, the methodology of the NBER study was assailed as being faulty. Critics such as sociologist Richard Applebaum of the University of Southern California at Santa Barbara, who specializes in the

Continued on page 8

Africa's Food–Population Gap Widens

Stemming population growth has become the World Bank's "highest priority" in sub-Saharan Africa.

In a new report, released in September in Nairobi, Kenya, the international development institution expresses concern that rapid population growth "is slowing development and sharply reducing the possibility of raising living standards" in sub-Saharan Africa. New projections by the Bank show the region's population mushrooming from 470 million to 730 million by 2000.

While the rest of the world's less developed regions are recording declines in birth and population growth rates, sub-Saharan Africa's growth rates may well increase during the rest of the century, the report suggests. Development and income rise have lagged and cultural traditions toward high fertility remain strong. Medical advances have also tended to increase fertility. And the Bank reports "limited" evidence that two fertility-lowering cultural practices – lengthy breastfeeding and sexual abstinence after childbirth – are becoming less frequent. Currently, in many sub-Saharan countries fewer than 5 percent of couples use modern contraception.

The Bank announced its intention to double its expenditures for family planning in the region over the next three years. At present, Africa receives $53 million annually in external population assistance, about 12 cents per person. The report recommends a goal of 75 cents per person.

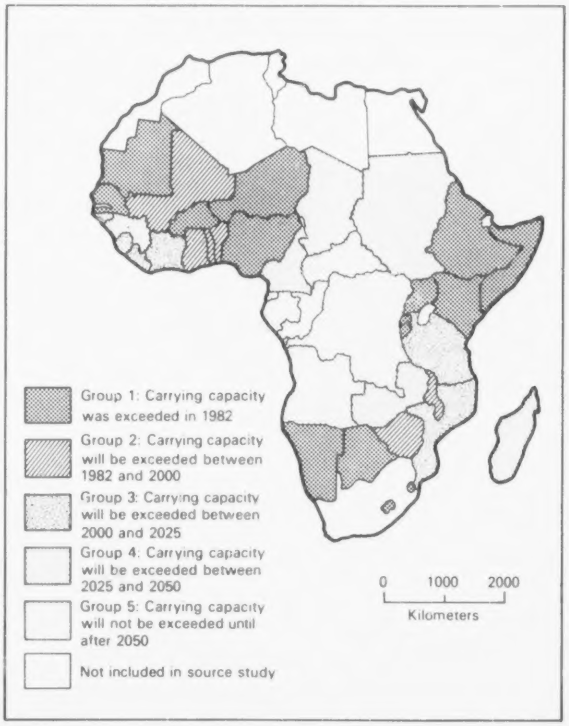
Per Capita Food Production Continues Falling

Meanwhile, the UN's Food and Agriculture Organization (FAO) reports that Africa's per capita food production has dropped 20 percent since 1960. Unless population and production trends change, the FAO predicts another 30 percent drop in per capita food production during the next 25 years, as the population-food gap widens.

The Bank report, "Population Growth and Policies in sub-Saharan Africa" is unusual in the sense that Bank studies customarily concentrate on economic issues of development, with demography a subordinate issue (though in 1984, population issues were the major theme of the annual World Development Report).

In addition, the report pauses to examine at some length the negative consequences of rapid population growth (as this issue applies to sub-Saharan Africa). It concludes that while population increase has not been the only cause of Africa's poverty (weak initial infrastructure and subsequent national policy failings are cited), "Africa's population is growing so fast that even a very rapid rate of growth of complementary resources – a rate comparable to that achieved by developed countries during the past 50 years–would not be enough to sustain a rise in per capita incomes."

While many countries in other world regions have experienced dramatic declines in their rates of population growth, "with the exception of Zimbabwe, no documented case of national fertility decline has occurred in [sub-Saharan] Africa," says the report. If unchecked, this growth could mean the "loss of long-run potential for higher economic growth and rising living standards, higher maternal and child mortality further degradation of the national environment. tighter constraints on extending education and basic health care and falling wages as the labor force grows more rapidly than complementary investments."


▨ Group 1: Carrying capacity was exceeded in 1982
▨ Group 2: Carrying capacity will be exceeded between 1982 and 2000
▨ Group 3: Carrying capacity will be exceeded between 2000 and 2025
☐ Group 4: Carrying capacity will be exceeded between 2025 and 2050
☐ Group 5: Carrying capacity will not be exceeded until after 2050
☐ Not included in source study
0
1000
2000
Kilometers

The map on this page shows projections of sub-Saharan African countries which have already reached or exceeded their theoretical population carrying capacity.

Included in the Bank report, this map assumes certain assumptions: all cultivable land is being used for growing food, food imports are nil, and agriculture is produced by low technology methods. Those assumptions are not far off. Importation of food requires either assistance or a source of foreign exchange (i.e., exports). Upgrading of agricultural technology requires considerable investment or assistance.

War, Pestilence, and Drought

And Africa's assistance needs are as great as ever. Although the region-wide drought has largely ended, rains and other climatic factors have encouraged new locust infestations, in many of the region's countries. Civil war in the Sudan and in Ethiopia has resulted in food politics, with rebels and governments controlling the transport of shipments of emergency food.

The region as a whole suffers from overvalued currencies, and from historical political situations that favor urban over rural constituencies (the urban areas themselves growing because of internal migration). This year, nearly 18 million Africans depended on food distribution for survival, the UN Office of Emergency Operations in Africa has reported.

Nevertheless, with the region out of the headlines, consistent nonemergency aid has dried up. Last summer the UN passed a nonbinding resolution calling for donor countries to participate in a five-year, $100 billion Priority Program to develop African countries' economies and assist them with debt servicing. But this comes at a time when total aid for Africa is weakening, down from $8.5 billion annually in 1980 to $6.7 billion in 1984. *–A.H.*

Immigration Bill at Goal Line

U.S. immigration reform is nearly the law of the land.

Dead as a doornail in the U.S. Congress only two weeks earlier, the immigration bill sprang back to life in early October. A controversial side issue – alien agricultural workers – was resolved, and the bill passed the House on Oct. 9, by a vote of 230 to 166.

The bill was rapidly reconciled in House-Senate conference, and the compromise bill went back to each house for final approval, passing the Senate Oct. 17. At press time the only step remaining is President Reagan's signature. Assuming he signs the bill (considered very likely), the U.S. will have its most far-reaching immigration-law overhaul in decades.

The bill's main features:

Employer sanctions: Civil penalty fines for knowingly hiring illegal aliens start at $500 per alien for a first offense. Employers can also receive criminal penalties (maximum prison sentence of six months) for a "pattern or practice" of violation.

Amnesty: Aliens able to prove they have lived in the U.S. since before Jan. 1, 1982 can apply for temporary resident status for a year; then permanent resident status for five years; then U.S. citizenship.

Agriculture: Illegal alien farmworkers may similarly gain legal status if they worked in the U.S. at least 90 days in the year prior to May 1, 1986. (This provision assuages concerns of Western growers concerning sufficient labor supply.)

Aid: The federal government is to spend $1 billion per year for four years to reimburse state agencies for benefits given aliens.

the need becomes apparent.

Identification: No national ID card is called for at this time. Employers are required to ask job applicants for documents proving either citizenship or resident alien status. (The bill does give the President power to implement some system to identify legal employees if the need becomes apparent.) *– A.H.*

SURVEY REPORT

Rwanda

A tiny landlocked republic in Eastern Africa, Rwanda has one of the highest birth rates in the world, according to a fertility survey conducted there in 1983. With Rwanda's 6.5 million, mostly agriculture-engaged inhabitants already pushing the limits of its lush farmland, the high rate of population growth has become a source of government concern.

Data collection problems make it hard to prove, but fertility in Rwanda quite likely has increased since the 1960s because of improved health conditions. In 1970, the total fertility rate (TFR) was measured at 7.7 children per woman, while the 1983 survey measured a TFR of 8.5 during the early 1980s, one of the highest recorded in this decade. Infant mortality has declined since the 1960s, but 120 to 150 infants still die per 1,000 births. Again, these are among the highest rates in the world.

Contributing to the high fertility, the average Rwandan woman is married before age 20, and has her first child before her second wedding anniversary.

Rwandan women say they prefer an average of 6.3 children, substantially less than the current TFR of 8.5. Husbands interviewed said they wanted slightly fewer, about 5.9 children. Family planning has not been popular, however. Only 11 percent of the currently married women over age 15 use any form of family planning, and 80 percent of these use periodic abstinence. Among an elite group of educated women in urban areas, contraceptive use is much higher, but the vast majority of Rwandans are rural and illiterate. Nearly 50 percent of the women who said they wanted no more children reported that they could "envision" using family planning in the future, while 39 percent of those wanting no more children said they would never use it.

Embassy of Rwanda

Rwanda's women average 8.5 children during their lifetime.

Other factors probably keeping the birth rate from going even higher include a rather late age for the onset of menstruation (15.3 years of age) and prolonged breastfeeding, which suppresses fertility. Children are breastfed for just over 20 months, on average, though younger women tend to wean their children sooner.

One factor which encourages high fertility is the lack of a taboo on postpartum intercourse which is prevalent practice in some African countries. In other African nations, this postpartum abstinence can last for as long as two years, or until the child is weaned.

The prospects for fertility decline in Rwanda are not bright given the almost nonexistent use of modern contraceptives and the early age at marriage. However, the fact that women admit to wanting fewer children than they are currently having shows that they might be receptive to family planning education, a first step toward its use. *– M.K.*

DEMOGRAPHER'S PAGE

Europeans an Endangered Species?

by Alexander von Cube

For 21 of Europe's 27 countries, "below replacement fertility" is a reality. Their average total fertility rate (TFR) is now 1.69. (With a TFR of 2.1, a little over two children per woman, a country's population just "replaces" itself – not counting migration.)

Below-replacement fertility is both an old and a new human phenomenon. Old, because for most of history, humanity's fertility was in a desperate race to stay as high as mortality; new, because today the fertility of most modern industrial states seems to be jockeying to become lower than mortality. (No magic "natural" arresting hook snagged Europe as it plummeted past the 2.1. TFR mark.)

Is sustained below-replacement fertility a major European problem? What is the general European policy response to the below-replacement phenomenon? This article will attempt to recount some of the story thus far.

Good or Bad?

"It is hardly possible today," says Danish demography professor P.C. Matthiessen, "to assess the advantages and disadvantages of a declining population and then draw a definite conclusion."

Modern nations, however, need to make precise fiscal and economic plans. They tend to perceive fertility decline as destabilizing, with major consequences for economic markets, national power, and social services. Their political leaders have traditionally viewed declining fertility as tantamount to declining national power. Their two major concerns: (1) the issue of insufficient numbers in the economically active population and (2) prospective personnel shortages in the ranks of the military. (Nonetheless, not all European countries perceive the present low level of fertility as unsatisfactory, the Netherlands being one exception.)

The Federal Republic of Germany (FRG) continues to experience the most strikingly low fertility of any country in the world. Its fertility has been below replacement for the past 17 years, and in 1984 its TFR hit a world record national low of 1.28 in 1985. Its population has been dropping by some 100,000 every year, and demographers have (not altogether seriously) projected Germany's demographic near-oblivion. In 2132, everything else being equal, mathematical inevitability shows Germany's population shrinking to a mere 9 million people.

> Without increased services such as child care and massive economic incentives, policies that aim to increase fertility seem bound to fail

Pronatalism and Family Assistance

Germany's fertility dearth has been repeated in somewhat less drastic form, in such countries as Denmark (with an estimated 1986 TFR of 1.4) and Austria, Italy, the Netherlands, and Switzerland (with estimated TFRs of 1.5). This widespread trend toward "negative growth" has not escaped the notice of Europe's policymakers. Political rhetoric, however, is one thing; formulating policy and (especially) implementing it is quite another.

Instituting pronatalist policies in democratic societies can be fiscally expensive and politically risky. The long-term interests politicians have for their countries are sometimes at odds with their short-term goal of getting elected.

Possibly as a result, only a few European countries (Bulgaria, France, and Romania) have explicitly pronatalist policies. But political leaders often make indirect pronatalist statements in the context of strengthening family policy. And family assistance policies (such as child allowances to improve purchasing power) prevail in virtually every European country.

Belgium, Finland, Luxembourg, and the German Democratic Republic (GDR) are nations which have instituted a progressive system of child allowances, increasing payments with each additional birth. (And it could well be argued that the policies have the dual purpose of lightening the parents' childrearing burden and raising fertility.)

In 1983, the Netherlands Population Institute (NIDI), with government endorsement, conducted a representative survey of men and women 20 to 64 years old, aimed at determining public acceptability of varying policy measures.

Currently, Dutch women receive paid maternity leave six weeks before and six weeks after childbirth. The majority of those questioned in the NIDI survey would prefer an extension of that maternity leave. The public also showed interest in the expansion of child care centers, according to the survey. Support for tax deductions of child care was largely limited to those with young children, however.

A 1985 Swedish government report on equality between women and men states that one reason women give for not having more children is a "determination to go out to work or do other interesting things."

Sharing the Childrearing Burden

These needs and demands are similar in other European countries. In fact, for now, the irony is that the very policy which promotes social object-

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Future 'Angst' in West Germany

Commissioned by the German Institute for Demography, a survey conducted in 1978 and 1983 of 1,000 married and 1,000 unmarried women, aged 18-28, elicited the women's reasons for restricting their number of children. The leading reasons, given in 1983 order, are as follows (respondents could give more than one reason):

Reason given*	% respondents giving reason	
	1983	1978
Fear ('Angst') of future	48.6	16.6
Society's negative attitude toward children	34.3	22.9
Availability of contraceptives	29.0	40.7
Financial disadvantages	27.1	23.8
Deterioration of social conditions	19.2	14.1

Source: Excerpted from *Zeitschrift fuer Bevolkerungswissenschaft*, January 1985. Katharina Pohl, "Reversal of Trends – or Change of Attitudes?"

*Other reasons given were: insufficient housing; trend of the times; threatening school problems; lack of child-oriented public institutions; insufficient public financial aid; insufficient professional opportunities for children; abortion opportunities; children are a nuisance; too few rooms in the apartment; lack of, or nonexistent, idealism; threat of permanent unemployment for many; divorce problems; experiences from own childhood.

tives for women, for example, their participation in the labor force, is likely to reduce fertility. The proverbial double-edged sword cuts pronatally with one edge and antinatally with the other.

Without increased services such as reasonably priced housing, child care centers, and massive economic incentives to compensate women for lost opportunity costs in the labor market, policies that aim to increase fertility seem bound to fail. The urgency to increase fertility fades into the background against such economic, social, and labor considerations.

We might even speak of a women's liberation cycle; that is, until women reach full equality in the labor market and society has found a way to accommodate childrearing without too many disincentives, fertility might well remain below replacement for some time to come.

Policy options that were once available and attractive to governments, for example, prohibiting abortion (as Romania did in 1966), thereby raising fertility, may no longer be socially acceptable, and new policies will have to be developed in tandem with research that determines what drives fertility behavior in the postindustrial society. This will include taking a closer look at political issues and the perspectives of the individual in the fertility decision-making process.

Ultimate Considerations

As Professor Josef Schmid, the German demographer, has said, the role of the capacity of the state to ultimately influence fertility behavior is limited. The diversity of policy measures from birth grants and marriage grants to child allowances, and the many changes in the late 1970s and early 1980s which extended and improved maternity benefits are testimony to the responsiveness of social services in Europe. It is also an indication of the experimental and transitional nature of European population policy.

However, as at least one native demographer has pointed out, European population policy goals to raise fertility resemble efforts in European zoos (so far marked by failure) to breed the giant panda bear. Any policy that aims to improve the climate for childbearing and further facilitate women's labor-force participation would require substantial fiscal outlays. Until a formula that is generally recognized to achieve this goal is contrived, many couples in Europe will not feel any real incentives to have more children.

But these are still times of high unemployment throughout Europe, in comparison to the United States. In such an environment it would be difficult to get broad public support for pronatalist measures. (During times of high unemployment and fiscal strain in states, it is safe to assume these policies will be up for scrutiny for fiscal viability; means tests and adjustments of ceilings will be made to give the state fiscal flexibility.)

Europe's fertility decline has already proved steeper and lasted longer than many analysts expected. Nonetheless, preserving rare specimens of *Homo europaeus* in zoos alongside giant pandas may be premature. But studying Europeans' anxieties and their alternatives to children might help us understand the changes that have occurred in their values. Understanding these changes would be a prerequisite to formulation of effective population policy and achievement of subsequent replacement fertility. ☐

America's Homeless

Continued from page 3

estimation of the homeless, found the study's estimates too low.

Another recent addition to the pool of estimates comes from the National Coalition for the Homeless (NCH). In October 1986 NCH surveyed shelter operators in 21 cities across the country. The survey concluded that the numbers of homeless are growing by an average 25 percent per year, and that families with children are now the fastest growing segment of the nation's homeless population. Further, they note that on average, less than 20 percent of the immediate emergency need for beds is being met. The report does not offer national estimates. Instead it provides a city-by-city evaluation of the homeless population and efforts to meet their needs.

A third study, "Responding to Homelessness in America's Cities," was released by The United States Conference of Mayors (USCM) in June 1986. This report concluded that hunger and homelessness rose sharply in urban America last year, despite improvements in the nation's economy. The report, based on a survey of government officials in 25 major cities, found that the number of families with children seeking food and shelter increased "significantly" last year. It did not mention specific national-level numbers.

Who Are They?

The stereotypical homeless person is no longer the "bum" of yesteryear – the middle-aged single white male down on his luck and suffering from alcoholism. The ranks of the homeless now cross demographic boundaries.

Homeless families are on the rise – on this point all the recent studies agree. Twenty-one of the 25 cities in the USCM survey report an increase in the number of homeless children. Twenty-seven percent of the homeless in those 25 cities consist of families with children.

These families are primarily headed by females and are predominantly black, even more so than for homeless individuals, according to the NBER report. Further, the NBER report finds the homeless consist largely of men over 30 and below 60 years of age, with the average age of the homeless being approximately 40 years. Blacks are disproportionately represented among the homeless, while Hispanics are underrepresented. Persons living on the street, rather than in a shelter, were nearly a decade older on average and were much more likely to be white than those living in shelters. In general, the street population seemed to be generally worse off, suffering more from substance abuse, and appeared to be less employable. Whereas 29 percent of shelter residents in the survey reported themselves unable to work, 44 percent of the street residents said they were unable to work.

Overall, along with the 27 percent in families, the USCM reports that 60 percent of the homeless are single men, while 12 percent are single women. About 33 percent of the homeless are considered to be mentally ill.

> Using a mathematical formula, the researchers established a ratio of homeless persons to people in shelters of 3.23 to 1

In the NBER survey, 39 percent of the respondents admitted to having spent time in jail, with an average incarceration period of two years.

Presumed Causes, Proposed Solutions

Why does homelessness persist? Various advocacy groups, such as the NCH, blame it on the lack of federal programs addressing the issue. Virtually all the service providers surveyed in the NCH report cited an extreme scarcity of affordable housing as a leading cause of homelessness. Since 1981, according to the NCH, federally subsidized housing programs have been cut over 69 percent.

The NBER study points out that, contrary to popular impressions, deinstitutionalization is not to blame for the recent surge in homelessness, since it occurred for the most part in the 1960s. Deinstitutionalization, however, did create a "new" subpopulation of whom many were in a psychological and economic position that made them particularly prone to fall into homelessness when faced with adverse circumstances.

The NBER report blames homelessness rather on a combination of changing social characteristics and changing housing market, which has created a dearth of low-cost housing. The report points to the growing number of female-headed households, coupled with increasing drug abuse, as a driving factor in the rise of homelessness. The report also sees the recession-related increase in the number of persons with exceptionally low incomes as a contributing, though not prime, factor. Since homelessness worsened from 1983 to 1985, after the recession of the early 1980s, economic factors cannot be the sole cause of homelessness.

A general consensus exists that emergency shelters, while necessary to protect the lives of those without homes, are not really addressing the roots of homelessness, and thus are not real solutions. Activists urge long-term federal initiatives, such as increased public housing, and measures such as preventing evictions from subsidized housing. The Reagan Administration, however, says that the homeless are the jurisdictions of state and local governments – not the federal government.

With little or no money to spend and often limited mental faculties, the homeless are for the most part politically powerless. But that may change. Courts in New York, New Jersey, California, and West Virginia have to various extents recognized a legal right to shelter for the homeless. In addition, Rep. Mickey Leland (D-Tex.) and Sen. Albert Gore (D-Tenn.) have introduced the Homeless Persons' Survival Act (H.R. 5140 and S. 2608). That act, proposed by NCH, along with 10 other national organizations, embodies a three-part program to address homelessness: (1) emergency relief, (2) preventive measures, and (3) long-term solutions.

– *J.A.*

Abortion's Legality Continues to Spread

An estimated 40 to 60 million abortions are performed in the world each year, some 33 million of these are legal. The worldwide abortion rate, including illegal abortions, stands between 37 and 55 abortions per 1,000 women aged 15 to 44 (the U.S.'s abortion rate is 27 per 1,000). (This would mean that approximately 1 out of 4 pregnancies end in abortion.)

These data come from the newly published *Induced Abortion: A World Review, 1986*, from the Alan Guttmacher Institute (AGI). This factbook, published every two years since 1973, was the brainchild of demographer Christopher Tietze. Tietze had just begun the update for the 1986 edition when he died suddenly in April 1984.

After his death, AGI agreed to take over from the Population Council the responsibility of publishing the factbook. Stanley Henshaw, Deputy Director of Research for AGI, heads up the project and is co-author, along with Tietze, of this sixth edition.

The factbook presents current country-specific information from a worldwide survey on the legal status of abortion, as well as trends in the accessibility and incidence of abortion throughout the world and the characteristics of women obtaining abortion. The factbook also includes time-series data and information on the medical aspects and health impact of abortion.

The trend throughout the world in recent years has been toward less restrictive abortion laws. According to the factbook, 75 percent of the world's people live in countries where abortion is legal at least for health reasons, and more than half of these live in areas where abortion can be obtained on request.

Abortion is now legal in virtually all developed countries and many developing countries. According to the survey, four countries with populations of 1 million or more (Taiwan, Turkey, Portugal, and Spain) have made their

Continued on next page

POSITIONS/PROFESSIONALS

The Rockefeller Foundation continues its **Social Science Research Fellowships in Population Studies**. Under this program, young social scientists from the U.S. and Canada who are interested in population and development issues will be given the opportunity to work in a developing-country institution for up to two years. The program is designed to provide demographers with an opportunity to obtain research experience in a developing country. Fellows are usually assigned to a university that has a training and research program in population studies, or to an autonomous research center.

Candidates should not be more than 38 years old and should have completed doctoral studies during the past 10 years in a social science discipline with a specialization in demography. The ideal candidate would already have a faculty appointment and be able to obtain the necessary leave of absence. Applications must be submitted by Dec. 31, 1986; for further information, contact: Fellowship Office, Rockefeller Foundation, 1133 Avenue of the Americas, New York, N.Y. 10036.

POPULATION UPDATE

Estimated United States Population:

As of May 1, 1986	241,121,000
As of May 1, 1985	238,888,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 989.

Estimated World Population:

As of October 1986	4,963,000,000
Annual growth	83,000,000

Estimated by extrapolation of the mid-1986 world population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: May 1986

	12 months ending with May					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,759,000	3,714,000	15.7	15.7	15.5	15.9
Deaths	2,087,000	2,080,000	8.7	8.8	8.6	8.6
Natural increase	1,672,000	1,634,000	7.0	6.9	6.9	7.3
Marriages	2,417,000	2,477,000	10.1	10.4	10.4	10.7
Divorces	1,183,000	1,162,000	4.9	4.9	5.0	5.1
Infant deaths	39,100	39,500	10.4	10.7	10.7	11.1
Population base (in millions)			239.8	237.1	234.7	232.5

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source. Monthly Vital Statistics Report (Vol. 35, No. 5) from the National Center for Health Statistics.

Abortion

Continued from previous page

abortion laws less restrictive since 1983, and only one country – Romania, in 1984 – has significantly reduced access to legal abortion since 1983 as part of a national effort to increase fertility.

Mortality from legal abortion is lower than that associated with childbearing throughout the world. The legal-abortion-related mortality rate in most countries is now generally below 1 death per 100,000 legal abortions. Mortality is high, however, where large numbers of illegal abortions are performed by nonmedical personnel, as is the case in a number of Latin American countries.

In countries where abortion is legal under most circumstances, the number of abortions ranges from one-tenth of the number of live births (the Netherlands) to twice that of live births (the Soviet Union). Except in the socialist countries of Europe, the proportion of all pregnancies that are terminated by abortion is higher among women under age 15 than among any other subgroup. *–J.A.*

New Population Kit Free to Model UN Participants

PRB has produced kits designed to educate participants in Model UN conferences about population issues. The project, sponsored by PRB, the Rockefeller Foundation, and the Agency for International Development–Development Education Program, is part of an effort to increase the coverage of population and development issues in Model UN conferences.

Each two-pocket folder package will contain seven 6-page regional overviews on population perspectives, along with a 12-page world overview, which includes a glossary and bibliography, and materials from PRB and the UN Fund for Population Activities. It is available free of charge to Model UN participants. In addition, PRB is preparing profiles of population policies of specific countries on a by-request basis.

Model UN organizers and participants who would like to know more about the project should write to: Model UN Project, Population Reference Bureau, Inc., 777 14th St. NW, Washington, DC 20005.

TAKE A NUMBER

U.S. Life Expectancy, etc. The National Center for Health Statistics (NCHS) has released its summary report of U.S. vital statistics for 1985, and two important measures showed little improvement. Provisional data indicate that life expectancy at birth remained 74.7 years in 1985, the same as the 1984 level, which was a record high. Life expectancy declined slightly for black males (by 0.2 years) and for white females (0.1), but remained the same for black females and white males.

During the year, death rates were higher in 1985 than in 1984 for pneumonia and influenza, partly due to a flu outbreak in early 1985. Nephritis and septicemia also showed slight increases, while cerebrovascular diseases and motor vehicle accidents both declined. The infant mortality rate in 1985 was 10.6 infant deaths per 1,000 live births, not statistically different from the 10.7 rate of 1984. This reflects a continuation of the slowing of the decline in the infant mortality rate since 1981, NCHS noted.

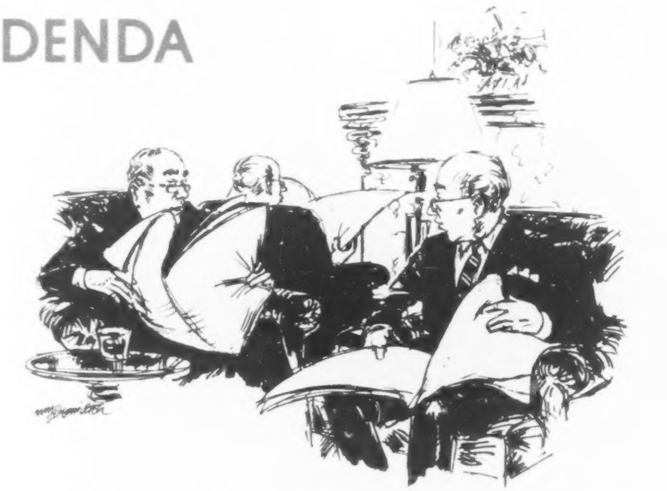
New Projections of U.S. Hispanics: The Census Bureau has released some results of its projections of the U.S. Hispanic population (the full report is to be published in November). The projections show that the Hispanic population, estimated at 15.8 million in 1985, would rise to about 25 million by 2000 and to 60 million by 2080, according to the "Middle Series" projection.

Projected U.S. Spanish Origin Population (in millions)

1982	15.8
1985	17.3
1990	19.9
2000	25.2
2010	30.8
2020	36.5
2030	41.9
2040	46.7
2050	50.8
2060	54.2
2070	57.2
2080	59.6

The Bureau's other projections series show widely different results, with the Low Series projecting a Hispanic population of 35 million by 2080 and the High Series, 141 million. *PT* will print a full summary of the projections when the Bureau's final report has been released. *–C.H.*

ADDENDA



"Bobby, I never noticed any damn baby boom, did you?"

Drawing by Wm. Hamilton; ©1986 The New Yorker Magazine, Inc.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

FOOD IN THE THIRD WORLD: Past Trends and Projections to 2000, Research Report 52, by Leonardo A. Paulino. Washington, DC.: International Food Policy Research Institute, June 1986. 76 pages. Limited free distribution. ISBN 0-89629-054-9.

The most disturbing image associated with unbridled population growth is that of famine: too many people, too little food. This image compels demographers to take note of the findings of this new, well researched publication which examines the trends in production, consumption, and trade of the basic food staples in 105 developing countries. The volume attempts to project and pinpoint food surpluses and shortages between now and the end of the century.

Relying on statistics from the UN Food and Agriculture Organization, Paulino found that increases in food production just about equaled population growth in the developing countries (excluding China) from 1961-1980, but that the net import of the most basic food staples grew about threefold during the same period. This deficit will worsen substantially in many countries, particularly in sub-Saharan Africa, by the year 2000.

Food in the Third World provides a baseline study showing the implications of the continuation of current trends with the hope of igniting some policy action by international aid agencies and national governments to forestall serious food shortages.

— Mary Kent

AFRICA IN CRISIS: the Causes, the Cures of Environmental Bankruptcy, by Lloyd Timberlake. An Earthscan Paperback. Washington, DC.: International Institute for Environment and Development, 1985. 232 pages. $7.75 ISBN 0-905347-57-9.

A winner of the U.S. World Hunger Media Award in 1985, this book shows that drought was not the only factor behind this decade's famine in Africa. Long-standing unsound economic, agricultural, and environmental strategies laid the groundwork.

This book outlines some of the steps taken in the past to improve environmental conditions in Africa. It gives the current status of each environmental issue and prescribes the necessary progress needed for future subsistence.

The book concludes with discussions of the institutionalization of environmental degradation through apartheid in South Africa, the relationship between famine and military conflict, the environmental refugee crisis, and the future of aid and development for Africa.

Timberlake offers a well written, penetrating resource with extensive coverage of environmental issues and their economic, social, and political causes and results. This survey serves as a text on environment and development in Africa suitable for all disciplines.

— Kimberly Crews

AFRICAN ECONOMIC HANDBOOK, by Michael Hodd. Detroit, Mich.: Gale Research, 1986. 335 pages. $80.00. ISBN 0-86338-08803.

A useful handbook is characterized by timely statistical and summary data. This is such a resource. It begins with a comparison of Africa and other world regions and a regional overview considering general economic circumstances. It includes a succinct discussion of the broad regional population problems of current concern, followed by a detailed scrutiny of recent economic strategies and an economic outlook based upon World Bank forecasts.

Topics covered include population, output and income, agriculture, international trade, aid, income distribution, foreign debt, government spending, education, health and welfare aspects of economic structure in the regions, gross domestic product growth, investment, international trade, exchange rate, and price distortions.

With the aim of comprehensive statistical coverage, the handbook uses all available data. Where possible, data within the statistical fact file are based on 1982 population figures and 1970-1982 performance data; the larger countries have 11 years of time series data with figures up to 1984. It boasts a fine statistical appendix.

The handbook is ideal for students, browsers, and quick reference seekers alike.

— Denise Molajo

Books Received

ELECTIONS AND DEMOCRATIZATION IN LATIN AMERICA, 1980-85, edited Paul W. Drake and Eduardo Silva. San Diego, Calif.: Center for Iberian and Latin American Studies and University of California, 1986. 335 pages.

THE IMPACT OF POPULATION CHANGE ON BUSINESS ACTIVITY IN RURAL AMERICA, by Kenneth M. Johnson. Boulder, Colo. Westview Press, October 1985. 180 pages.

MAIN STREET AMERICA AND THE THIRD WORLD, by John Maxwell Hamilton. Washington, DC.: Seven Locks Press, 1986. 184 pages.

REGIONAL IMPACTS OF U.S.- MEXICAN RELATIONS, edited by Ina Rosenthal-Urey. San Diego, Calif.: University of California Center for U.S. Mexican Studies, 1986 (Monograph Series, 16). 154 pages.

TEACHING DEMOGRAPHY: A Summary Handlist of Universities and Other Institutions (Vol. 1: "Teaching Demography," 99 pages. Vol. 2: Details of Curricula and Related Matters in Universities and Other Institutions Teaching Demography, 97 pages), by the Department of Technical Co-operation for Development. New York: United Nations, 1986.

WORLD REFUGEE REPORT: A Report Submitted to the Congress as Part of the Consultations on FY 1987 Refugee Admissions to the United States, prepared by the Bureau for Refugee Programs. Washington, DC.: The United States Dept. of State, September 1986. 103 pages.

PUBLICATION ORDER FORM Fall/Winter 1986

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Concise, timely Population Bulletins are written by experts on world and national demographic trends. Widely used by universities, business, libraries, schools, individuals and the media. Average length, 44-48 pages.

Volume 41 (1986)

- ☐ Demographics and Housing in America, by George Sternlieb and James W. Hughes
- ☐ World Population in Transition, by Thomas W. Merrick, with PRB staff
- ☐ Population Pressures in Latin America, by Thomas W. Merrick, with PRB staff
- ☐ Immigration to the U.S., by Leon F. Bouvier and Robert W. Gardner, forthcoming November 1986

Volume 40 (1985)

- ☐ Sub-Saharan Africa: Population Pressures on Development, by Thomas J. Goliber
- ☐ Adolescent Fertility: Worldwide Concerns, by Judith Senderowitz and John M. Paxman
- ☐ Poverty in America: Trends and New Patterns, by William P. O'Hare
- ☐ Asian Americans: Growth, Change, and Diversity, by Robert W. Gardner, Bryant Robey, and Peter C. Smith

Volume 39 (1984)

- ☐ Planet Earth 1984-2034: A Demographic Vision, by Leon F. Bouvier
- ☐ Israel's Population: The Challenge of Pluralism, by Dov Friedlander and Calvin Goldscheider
- ☐ The Business of Demographics, by Cheryl Russell
- ☐ Delayed Childbearing in the U.S.: Facts and Fictions, by Wendy H. Baldwin and Christine Winquist Nord
- ☐ Understanding U.S. Fertility: Findings from the National Survey of Family Growth, Cycle III, by William F. Pratt et al.

Volume 38 (1983)

- ☐ Third World Family Planning Programs: Measuring the Costs, by Nancy Yinger et al.
- ☐ China: Demographic Billionaire, by Yuan Tien
- ☐ U.S. Hispanics: Changing the Face of America, by Cary Davis, Carl Haub, and JoAnne Willette
- ☐ The Changing American Family, by Arland Thornton and Deborah Freedman

Volume 37 (1982)

- ☐ The World Fertility Survey: Charting Global Childbearing, by Robert Lightbourne, Jr. and Susheela Singh, with Cynthia P. Green
- ☐ U.S. Population: Where We Are, Where We're Going, by Population Reference Bureau staff and guest experts
- ☐ The Soviet Union: Population Trends and Dilemmas, by Murray Feshbach
- ☐ Black America in the 1980s, by John Reid
- ☐ Demographic Trends Tax the IRS
- ☐ Conflict in Central America: The Demographic Dimension
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- ☐ The Elusive Exodus: Emigration from the United States
- ☐ The New Population Debate: Two Views on Population Growth and Economic Development
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- ☐ 1986 World Population Data Sheet (24th year of publication) in English
- ☐ 1986 World Population Data Sheet in French
- ☐ 1986 World Population Data Sheet in Spanish
- ☐ The United States Population Data Sheet (Sixth edition forthcoming, November 1986)

POPULATION TRENDS AND PUBLIC POLICY................$3.00
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- ☐ Today's Women: Careers, Children, Challenges, forthcoming December 1986

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POPULATION TODAY

Vol. 14, No. 11 November 1986

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Immigration could account for all growth by 2030

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4 **Women head 45 percent of Botswana's households**
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Women head nearly half of Botswana's households. See page 4.

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FROM THE EDITOR'S DESK

Good morning. Population Reference Bureau

Hullo. What part of the Government is this?

Ahhh, bless you, sir, but we're not a Government agency.

At PRB's bustling Washington, D.C., office, a dialogue like the above is reenacted many times a year. The answer is always worth repeating: the Population Reference Bureau, Inc., is not a branch of any government, federal, state, local, or otherwise.

Decades ago, PRB's *Bulletins* even carried the plea: "Not a government publication."

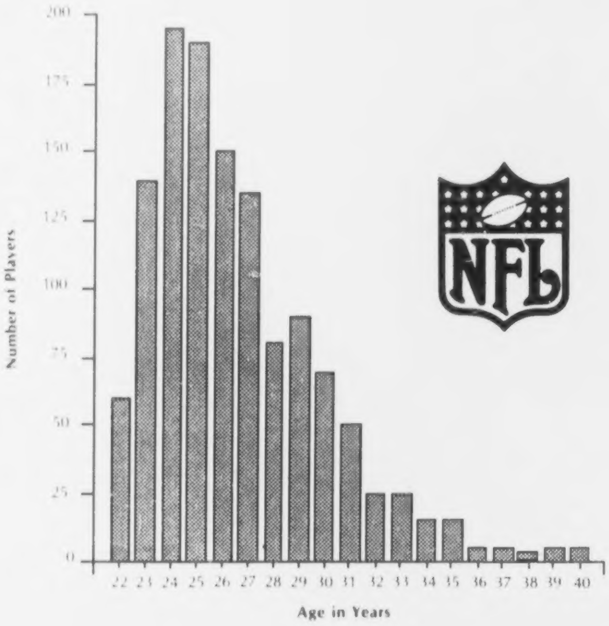
Admittedly, the very word "Bureau" has a solid federal sound to it; as in, Engraving and Printing ... Mines ... Investigation. (And of course, Census.) An institutional term from the French, "Bureau" suggests something smaller than a Department or Administration, but bigger than a night table.

During 57 years of service, PRB has occasionally entertained the idea of a name change, to something descriptive like "institute" or "center." But "Bureau" PRB has remained, just as it remains an established, private, nonprofit, educational, incorporated organization—its mission the objective analysis and reporting of one of the world's most compelling concerns. Maybe it would help if in the future we answered the phone with a cheery-but-firm:

Good morning, Population-Reference-Bureau—INK!

—Art Haupt

SPEAKING GRAPHICALLY



It's a young man's sport The above chart shows the age distribution of the approximately 1,260 players of the National Football League, based on statistically sampling the 45-man rosters of the 28 teams. The great majority of the players are in their middle 20s; thereafter, the graph suggests the existence of an attrition process. Nonetheless, a few players are considerably older, and of all the teams, the Atlanta Falcons spans the widest generation gap, fielding both the oldest and youngest player on the gridiron (center Jeff Van Note, born Feb. 7, 1946, and tight end Ron Middleton, born July 17, 1965).

POPULATION TODAY

VOL. 14, NO. 11 **November 1986**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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*Educators and students should send supporting documentation.

Immigration Seen Transforming U.S.

The ethnic makeup of the United States "is changing dramatically" due to immigration, according to Leon F. Bouvier and Robert W. Gardner, authors of the latest PRB *Population Bulletin*, "Immigration to the U.S.: The Unfinished Story."

Their report comes just as the most far-reaching immigration reform law in decades was signed into law by President Reagan Nov. 5. A comprehensive bill aimed at curtailing illegal immigration, this latest reform of immigration law imposes civil and criminal sanctions on employers hiring aliens. In addition, it gives amnesty to most present illegal aliens, who currently lead lives and careers in a legal limbo. (For reaction to the bill, see page 5 of this issue; for further bill details, see the October 1986 *PT*.)

Bouvier and Gardner note that net migration is now the source of 28 percent of the nation's population growth, according to Census Bureau estimates. To put it another way, every year, statistically speaking, an average group of 1,000 people in the U.S. experiences 16 births, 9 deaths, and the arrival of about 2 immigrants.

If fertility remains at the current low fertility rate of about 1.8 total births per woman, the authors add, immigration "will account for all growth by the 2030s."

Stirring Up the Melting Pot

The ethnic mix of the immigrants themselves, and ultimately the country, is projected to change markedly. This is because immigration from Europe, historically the dominant source of newcomers, has fallen over the years to about 11 percent of total legal immigration in 1981-1985.

Asia provided 48 percent of the 573,000 legal immigrants admitted each year in that five-year period and Latin America some 35 percent. In addition, the number of immigrants settled illegally in the United States is growing by up to half a million a year; the report estimates that three-quarters of illegal immigrants are from Latin America.

Laotian refugee being tutored in English

If current trends continue, in 100 years non-Hispanic whites of European origin may no longer constitute a majority of the American population.

With immigration of 500,000 annually and fertility at 1.8 births per woman, the demographers project that "just under 60 percent of the [U.S.] population of 2080 would be non-Hispanic whites, down from 80 percent in 1980. Hispanics would increase from 6.4 to 16.1 percent, Asians from 2 to 10 percent, but blacks only from 12 to 15 percent."

Because of migration and low fertility, in 100 years non-Hispanic whites of European origin may no longer constitute a U.S. majority.

"If illegal immigration remains high and annual immigration averages 1 million, the non-Hispanic white proportion would drop to just under 50 percent in 2080. Asians would be up to 12 percent, Hispanics would be 23 percent, having already in 2010 surpassed blacks to become the largest ethnic minority in the nation; and blacks would be only 14.7 percent."

The study concludes that "by about 2075, non-Hispanic whites would be the largest minority in a nation without any ethnic majority population."

Changing Labor Roles

Noting the difference in education and occupation between the Asians and Hispanics, the study points out that a "two-tiered society could emerge, with Hispanics competing with poorly educated blacks for low-level service and laborers' jobs and Asians competing with middle-and upper-class blacks and whites for the well-paid, specialized jobs of America's increasingly high-tech society."

Given the economic and population pressures building in the Caribbean Basin, Bouvier and Gardner predict an inexorable flow of newcomers to the U.S. They assert that the movement "is an opportunity and a challenge."

Leon F. Bouvier, who recently retired as PRB's vice president, will be visiting professor at the Tulane University School of Medicine in early 1987. Robert Gardner, most recently a Mellon Foundation Visiting Scholar at PRB, is a Research Associate at the East-West Population Institute, Honolulu.

— *W.P.C. AH*

Copies of the 51-page *Population Bulletin*, "Immigration to the U.S.: The Unfinished Story," (Vol. 41, No. 4), can be ordered for $4.00 each; 2-10 copies, $3.00 each; 11-50 copies, $2.50 each; over 50, $2.00 each. For ordering information, see page 4.

USA! USA!

Half a century from now, over one out of every five Americans may well be 65 or older. That's the outlook projected on PRB's new *United States Population Data Sheet* (sixth edition), being sent to PRB members in this month's membership mailing.

Using Bureau of Economic Analysis projections, which assume increased life expectancy and continued low fertility, the *Data Sheet* shows the over-65 populations state by state for the year 2035. The "oldest" states are projected to be Pennsylvania and Arkansas, where 26 percent of the population could be over 65.

As the *Data Sheet* shows, Alaska has finally climbed out of the population-rank cellar, leaving Wyoming in 50th place. By 2000, the Republic of Vermont is expected to occupy that spot. California continues its expansive growth. With 26.4 million, that state has already passed Canada in population and is projected to reach 31 million by 2000. The Golden State, along with Florida and Texas, accounted for 53 percent of total U.S. population growth from 1980 to 1985, making growth in the U.S. and the celebrated Sunbelt a phenomenon largely due to just three states (the CFT factor?).

One *Data Sheet* column examines population growth or decline in a somewhat novel light: the percent of a state's counties which lost population from 1980 to 1985. There are some surprises here. Only a few states had no counties experiencing population loss, and these states are not all in the Sunbelt. No county in Vermont, Rhode Island, or Connecticut lost population during the five-year period. Other states in that category are Delaware (which has only three counties, anyway), Hawaii (just four), California, and Florida.

The fact that none of Florida's 67 counties lost population is one indication of just how pervasive growth in that state really is. Chief among the people-losers was Iowa, with 70 percent of its counties declining in population. Even states often associated with rapid growth, Colorado and Nevada, saw 27 and 29 percent, respectively, of their counties lose population.

The *United States Data Sheet* debuted in 1981. Modeled on the new format of the *World Population Data Sheet*, this year's edition is printed on both sides to allow increased graphics and informative text. *—C.H.*

Copies of the *United States Population Data Sheet* (sixth edition) are $2.00 per single copy; 2-10 copies, $1.75 ea.; 11-50, $1.50 ea.; over 50, $1.25 ea.

General ordering information: Send order to PRB, Circulation Dept., P.O. Box 35012, Washington, D.C. 20013. Orders of $20.00 or less must be prepaid. Please add $1.00 for postage and handling. International orders: Please add $1.00 or 25 percent of the cost of publications ordered (whichever is greater) to cover postage and handling.

Women Head Botswana's Households

by James D. Tarver and H. Max Miller

Of the 173,900 households enumerated in the 1981 Botswana Census, fully 45 percent were headed by women. Of those households whose heads were under 30 years old, more than half were women. By comparison, 27 percent of all household heads in the United States in 1981 were women. Proportionally, almost twice as many Botswana as American women maintain separate households.

This disproportionate number of female household heads is an unusual phenomenon. It can be attributed to a number of factors, among them differential mortality, divorce and separation, temporary absence of husbands, delayed marriage, nonmarriage, and the relatively prevalent practice of fertility outside marriage in Botswana.

Death rates at every age are higher for males than for females in Botswana, resulting in a greater life expectancy at birth for females. In 1981, the average life expectancy of females was just over 59 years; for males it was 53 years. This higher life expectancy, coupled with the fact that most Botswana women marry slightly older men, results in a relatively large number of widows. Between 35 and 40 percent of Botswana female household heads are widows.

Divorce and separation usually result in the establishment of at least one new household. In Botswana, divorce is reported much more frequently by females than by males. Nearly twice as many women as men reported divorce and separation in 1981, 9,300 compared to 4,700. One can assume that somewhere between 6,000 and 8,000 of the

Continued on page 9

Number of Households, by Sex of Household Head, Age, and Rural and Urban Residence, Botswana, 1981

Household	Age of Household Head				
head	Under 30	30-44	45-64	65 & Over	Total
			Total		
Total	37,978	50,016	52,304	27,468	170,833
Male	17,704	27,608	30,904	15,787	93,698
Female	20,274	22,408	21,400	11,681	77,135
			Rural		
Total	25,272	35,822	45,405	26,372	135,634
Male	10,307	17,524	25,742	15,020	70,034
Female	14,965	18,298	19,663	11,352	65,600
			Urban		
Total	12,706	14,194	6,899	1,096	35,199
Male	7,397	10,084	5,162	767	23,664
Female	5,309	4,110	1,737	329	11,535

Source: Republic of Botswana, 1981 Population and Housing Census.
Note: Table excludes 3,067 household heads of unknown age.

An Immigration Sampler

Reactions collected by *PT* to the immigration reform bill, which was signed into law by President Reagan on Nov. 5.

"I voted for the measure, but I did so with great reluctance, because I fear it will open the floodgates for further illegal immigration.

"Since the bill contains an amnesty provision that provides legal status to those who can prove that they lived here since 1982, without any thought to sealing our borders, we are faced with a situation where hundreds of thousands of illegals will enter this country in the coming months, seeking to obtain legal status under amnesty. Counterfeit documents are easy to come by along the border, and illegals will use these to show they resided here before 1982.

"This bill is less than perfect, but it is a necessary first step. I hope the Congress will continue to work on immigration next year, so we can take effective steps to seal our now porous borders."

—Rep. James Scheuer (D-N.Y.)

"There will be some gain in wages to native Mexican-Americans, but we don't know how much. There will be some reductions in the numbers of businesses in textiles, furniture, and related businesses, but we don't know how much. There will be some cost to employers from dealing with the new requirements—again, who knows how much? There will be considerable loss to the public coffers in the taxes paid by illegals now which far exceed the cost of the services they use. For sure, there will be massive milling around and confusion until the whole thing shakes out."

—Julian Simon
Teacher of Business Administration
University of Maryland

"Small employers, who create the majority of new jobs, would be subject—for the first time—to claims of discrimination based on alienage or national origin. A bureaucracy within the Justice Department would be created to investigate claims. Union hiring halls are exempted from all sanctions, including the knowing referral of illegal aliens. . . . The proposed solution to the problem of illegal aliens has been devised overwhelmingly at the expense of the business community. The Chamber [of Commerce] strongly opposes these provisions."

—Albert D. Bourland
Vice President
U.S. Chamber of Commerce

"The AFL-CIO spent many years trying to achieve [an immigration] law that is consistent with the Nation's tradition for compassion and humane treatment. The final legislation is not perfect, but it does include employer sanctions, anti-discrimination protection, and a reasonable legalization process, though it excludes too many current residents. We hope it will be administered with justice and compassion."

—Thomas R. Donahue
Secretary-Treasurer
AFL-CIO

"The United Farmworkers opposed the immigration bill. It does not address the economic and social problems in Mexico and Latin America that the U.S. has the responsibility to help. . . . The American public has been deceived about the bill. The whole attitude is very bad, and the increased Border Patrol will increase incidents. . . . [Nevertheless] the Farmworkers initiated and did support the legalization process for farmworkers [whereby aliens who worked in U.S. agriculture at least 90 days in the past year can qualify for resident status]."

—Dolores Huerta
Vice President
United Farmworkers of America

"I strongly favor sanctions. . . . I feel that sanctions will have the effect of raising the wage here. . . . But I feel that the Social Security Administration should issue magnetic cards that do not discriminate between black, brown, green, or yellow. A magnetic card that everyone has to present for employment. There could be no discrimination as long as everyone—you and I—has to present that card."

—Jonathan Rogers,
Mayor
El Paso, Tex.

"Our biggest concern, given that the Rio Grande Valley is 85 percent Hispanic, is the provision that the employer check the citizenship of the job applicant. We feel that that's discriminatory. There is no question that we need an immigration law; however, I think there'll be some adjustments made [later in the law]."

—Emilio A. Hernandez,
Mayor
Brownsville, Tex.

"After 34 years, the adoption of employer sanctions is a great victory for the American people. Whether the legislation will generate progress or a further retrogression will depend on how assiduously the Administration and the INS enforce its provisions. The problem that grew up during the last three decades will not be solved just by a stroke of the President's pen."

—Roger Conner
Executive Director
Federation for American
Immigration Reform
(FAIR)

DEMOGRAPHER'S PAGE

Differentials in Marital Status Between Black and White Males

by Alvin J. Sanders

Between 1970 and 1980 the proportion of U.S. adults of parenting age[*] who are in intact marriages[**] fell significantly, reflecting high divorce rates and shifting choices concerning marriage. (In the previous decade, the decrease in proportion married had been relatively slight.) The 1970-1980 drop was about twice as large for blacks as for whites. While the intact-marriage percentage for white males 35-39 was falling from 85.7 percent to 80.5 percent, for example, the rate for blacks the same age fell from 69.5 percent to 60.8 percent, as shown by figure 1.

This divergence by race is puzzling in view of the large gains in socioeconomic status gains made by blacks during the same period. For example, young (under age 35) black married couples in the U.S. now have nearly 90 percent of the income of white couples the same age, up from 60 percent in 1960; similarly, the proportion of young (age 25-29) blacks who have completed high school in the U.S. was in 1982 only 6½ percentage points below the white figure, versus about 26 percentage points in 1960.

Jobs and Money Not Enough

A substantial body of scholarly opinion and research linking marital status to various measures of socioeconomic status serves to underscore the paradox that the social and economic status of blacks and the black-white gap in marital status have increased simultaneously. Nothing in this article should be construed as questioning such a linkage. On the other hand, it would be a logical fallacy simply to assume that the existence of this linkage means that social and economic differences are the *major* cause of marital status variations, such as the observed black-white differences.

Studies have long linked employment and marital stability. For example, a 1985 study essentially defines "marriageable" as "employed." To oversimplify, the argument is that a man needs a job to support a family, and conversely, if a man has a job he will probably marry and support a family. Following this supposition, we would expect to find very little difference between employed black men and employed white men in marital status.

However, the data show that only 69 percent of employed black men aged 35-44 were in intact marriages in 1980, versus 84 percent for their white counterparts. The gap of 15 percentage points is three-fourths of the overall black-white difference in this age group (19.6 percentage points, when not controlling for employment status). Thus, differences in employment status can account for only about one-fourth of the total difference by race in the proportion of males who are in intact marriages.

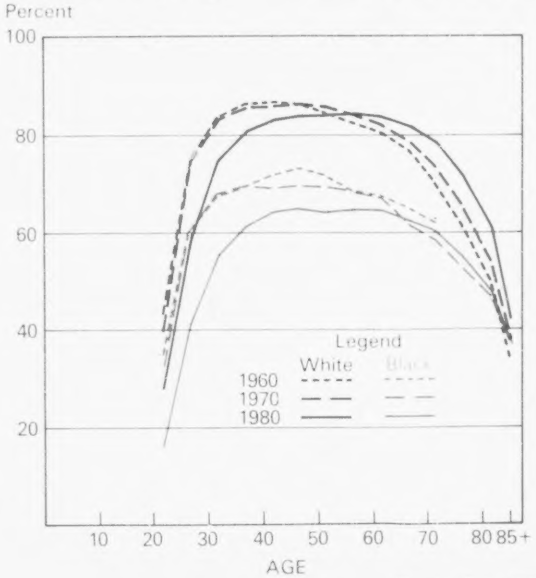
Arguably, employment status may be a fairly weak control because of the wide distribution of the particulars of employment. Income offers a better way of establishing socioeconomic parity between white and black men. In the age group 35-44, 1980 Census data show that the black-white difference in marital status (proportion in intact marriages) is roughly 12 percentage points at all incomes over $10,000 (as shown in figure 2). This is about two-thirds of the overall difference in this age group (19.6 percent). In other words, controlling for income removes about one-third of the overall difference between the proportion of black males and white males who are married. The other two-thirds remains.

Roles of Occupation and Education

Since the criteria of employment status or income are necessarily based on the events of a single year, using them might conceal substantial year-to-year variations. Incorporating a measure of stability in income or employment would establish more valid controls for making black-white comparisons.

For example, occupational stability can be approximately controlled by comparing black men and white men within either the manager/professional group or the laborer/operator group. The former group is more stable (i.e., experiences less unemployment) than the latter. Moreover, occupation group is more important than race as a determinant of employment stability with this choice of occupation groups. Nevertheless, white

Figure 1: Proportion of Persons in Intact Marriages by Age and Race, 1960-1980



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[*] Although the age range of parenting differs widely among individuals, anyone who is ever a parent is almost certain to have minor children in his late 30s or perhaps early 40s. Therefore, this report focuses on the "unavoidable parenting age group"— 35 to 39 (or 35 to 44, depending on data availability).

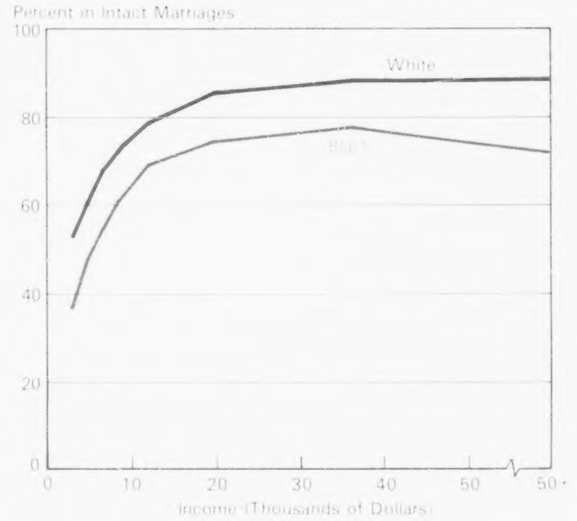
[**] To be "in an intact marriage" means to be "married and living with spouse," as defined by the U.S. Census Bureau.

Alvin J. Sanders is an economist at the
Economics Analysis and Assistance Branch
of the Tennessee Valley Authority.

males in either group are significantly more likely to be married than black males in either group. The biggest surprise, perhaps, is that substantially more of the white laborer/operator group are married than the black manager/professional group. The difference is 12.8 percentage points in the 35-44 age group (see figure 2) or two-thirds of the overall difference[1]

The change in marital status depending on educational attainment (college graduate versus high school dropout) follows the same pattern. Again, at each educational level, white males are substantially more likely than black males to be married. Moreover, white high school dropouts are substantially more likely to be married than black college graduates.

Figure 2: Proportion of Males 35-44 in Intact Marriages by Income and Race, 1980



"Over-Controlling"

Of the various methods described above for approximating social and economic parity between black and white males, the comparison of white laborers and operators with black managers and professionals is the clincher. In this comparison the black males are higher than the white males in income, education, employment stability, and occupational prestige. But even when comparing these groups, whites are still much more likely than blacks to be in intact marriages, and the difference of 12.8 percentage points is two-thirds of the overall (uncontrolled) difference of 19.6 points for this age group. Because this comparison *over-controls* for variables in status, it follows that somewhat *more* than two-thirds of the difference in marital status between black and white males is due to something other than social and economic differences.

Consequently, even social and economic equality between black and white males would erase, at most, somewhat less than one-third of the proportional difference in intact marriages, among those who are of parenting age. Moreover, an impact of this magnitude would be achieved only if the social and economic factors are entirely independent variables. If there is any interdependence, then complete socioeconomic parity would have a smaller impact on marital status.

Conclusion

A large and respected body of literature has found that low socioeconomic status does indeed adversely affect marital status. However, this study shows — by controlling for age, employment status, income, and stability of income and employment — that socioeconomic status is not the dominant factor in determining marital status difference between black and white males.

The opinions expressed herein are those of the author and do not necessarily reflect the policies of the Tennessee Valley Authority or the views of TVA management.

UN Issues New Assessment

World Population Prospects, the biennual UN assemblage of country-by-country population estimates and projections, has just been published — a reference book deemed essential for anyone who works with international population data.

Here between the covers of a one-kilogram book are population data for over 200 countries, from 1950 onward (by five-year intervals), with estimates from 1950 to 1980, and projections thereafter all the way to 2025. Then, according to the medium variant, the world's population is expected to be 8,205,765,000.

Population growth rates are projected to fall from the approximate 1.7 percent rate currently, to about 1.5 percent at the end of the century, and 0.96 percent in the 2020-2025 period (medium variant). This decline is in response to projected drops in the world's total fertility, from 3.52 total births per women in 1980-1985 to 2.36 in 2020-2025 (again, medium variant).

The body of *Population Prospects* contains, as always, a substantial sheaf of wall-to-wall computer-generated tables, broken down into the principal categories of vital statistics and demographic data. From national urban population totals in 1950 to male and female life expectancy in 2025, it's all here.

Although this year's *Prospects* holds 286 pages of tables, it nonetheless measures a good one-third thinner than its predecessor. (The reference is called "1984" because it is based on estimates and data from 1984 and earlier).

In particular, unlike previous *Prospects* editions, age distributions of national populations are not included. This abridgment is partly due to budget considerations, however, computer tapes containing the major results of the UN's projections can be obtained from the Director of the UN Population Division.

— *AH*

To order World Population Prospects: Estimates and Projections as Assessed in 1984 (Sales No. E.86.XIII.3, price $35.00), contact: The United Nations, Sales Section, United Nations, New York, NY 10017

PRB Honors Population Achievement

Richard Benedick, Coordinator of Population Affairs for the State Dept. from 1979 to 1984 and currently that department's Deputy Assistant Secretary for Environment, Health, and Natural Resources, received PRB's annual award for his "outstanding contributions to population policy."

Schuyler Richardson

Trustee Anne Firth Murray with PRB Award Winner Richard E. Benedick.

At PRB's annual Awards Dinner, held Oct. 23 at the Washington Conference Center, PRB Board of Trustees member Anne Firth Murray praised Benedick's "extraordinary dedication and achievement" in his role as Coordinator of Population Affairs, citing his leadership in stimulating enhanced U.S. and international efforts in biomedical research, which led to major new funding and program initiatives by the UN Fund for Population Activities.

Benedick also directed an unprecedented joint United States-United Nations mission to Nigeria which contributed to a turnaround in that country's attitude toward population trends, and helped formulate a population strategy for Nigeria.

Honored as well was Leon F. Bouvier, recently retired PRB vice president, not only for his years of service to PRB, but for work at the Smithsonian Institution, the U.S. House of Representatives, and the Census Bureau. Bouvier, co-author of this month's *Bulletin* (see page 3), will be teaching at Tulane University during winter 1987.

Marriner C. Eccles, Jr., Melvyn Estrin, and Norman E. Borlaug, all of whom have completed two three-year terms on PRB's Board of Trustees, were named PRB Honorary Fellows. Benedick and Bouvier joined past award recipients as PRB Honorary Fellows.

Also recognized at the dinner was Robert R. Nathan who sat on PRB's Board of Trustees from 1967 to 1975, serving as chairman from 1970 to 1975. Nathan, president of Robert R. Nathan Associates, consulting economists, was elected one of the first PRB Honorary Fellows in 1981.

Michael Teitelbaum, of the Alfred P. Sloane Foundation, addressed the dinner's attendees on the "fear of population decline" (the subject of his book of the same title co-authored with Jay M. Winter). Teitelbaum criticized the basis for this anxiety, referring to the fear as a burgeoning interest of "strategic demography."

Fear of population decline, he pointed out, was always localized. Few people (or countries) were frightened of the prospect of a shrinking global population (something that has yet to occur). Rather, their concern was about the diminishing of their own ethnic or national numbers vis-a-vis other ethnic or national groups, including immigrants.

Countries fearing their own population's decline have four alternatives, Teitelbaum said. They can institute restrictions against contraception (though legal and ethical problems abound here); they can institute positive rewards for fertility, e.g., a maternity wage of some kind; they can increase immigration; or they can decide to adapt to their changing size and composition. —*JA*

Mildred Marcy, Chair of PRB's Board of Trustees, congratulates a predecessor, Robert R. Nathan.

Trustee Bennetta B. Washington and her husband, former DC Mayor Walter Washington.

Botswana

Continued from page 4

9,300 maintained their own households.

Due to the lack of sufficient employment opportunities in most rural areas of Botswana, it has been the custom for thousands of men to seek jobs away from home, sending their pay back to their families. The wives at home are put in charge of their children, herds, and farms. Wives with temporarily absent husbands are counted as household heads by census enumerators. Conservatively, one may assume that somewhere between 15,000 and 20,000 females with absent husbands were counted as household heads in the 1981 Census.

Late age at marriage of Botswana women accentuates the number of female household heads. Less than 30 percent of Botswana women are married at 20-24 years of age, compared to over 90 percent in Bangladesh and Burkina Faso. At 25-29 years of age fully half of the Botswana women are still unmarried. Many single women establish households either solely for themselves, themselves and their children, and obviously in various other types of arrangements.

Relatively large numbers of Botswana female household heads have never married. In 1981, 17 percent of all women aged 45-49 were still unmarried. Also, more than 10 percent of those 55-64 years of age had never married.

In Botswana, fertility outside of marriage is a relatively common phenomenon. Seventy-five percent of all births to Botswana mothers 15-19 years of age in 1981 were to unmarried women, and 57 percent of all births to women 20-24 years were also to single mothers. Single women in Botswana have nearly as many children as married women. A conservative estimate puts the average number of children for single women at 5, compared to 7 for married women. Fertility outside of marriage is an obvious explanation for many Botswana households headed by single females, as single women maintain separate households for themselves and their children and depend mainly upon other relatives for support.

James D. Tarver, formerly Professor, Dept. of Demography at the University of Botswana, is currently at the Center for the Study of Youth Development, Catholic University of America. H. Max Miller is Associate Professor, Dept. of Sociology, University of Georgia.

POSITIONS/PROFESSIONALS

Research Director. The Urban Institute, to direct its Program in Demographic Studies. Current program interests include immigration to the United States, family and household demography, and population and development interrelations. Candidates will ideally possess a broad range of experiences and research interests, a demonstrated interest in the policy aspects of population change, and national professional visibility. Responsibilities include fund raising, continued professional involvement, and supervising a staff of five. Interested candidates should submit a resume, writing sample, and names of three references to: Director of Personnel, The Urban Institute, 2100 M St. NW, Washington, DC 20037.

Positions open in population-related fields will be published free of charge in Population Today *on a space-available basis. Send information to: Positions/Professionals, PT, Population Reference Bureau, Inc., 777 14th St. NW, Suite 800, Washington, DC 20005. Positions listed in PT are provided by Equal Opportunity Employers.*

POPULATION UPDATE

Estimated United States Population:

As of June 1, 1986	241,302,000
As of June 1, 1985	239,071,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 991.

Estimated World Population:

As of November 1986	4,970,000,000
Annual growth	83,000,000

Estimated by extrapolation of the mid-1986 population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: June 1986

	12 months ending with June					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,739,000	3,741,000	15.6	15.8	15.5	15.9
Deaths	2,093,000	2,077,000	8.7	8.8	8.6	8.6
Natural increase	1,646,000	1,664,000	6.9	7.0	6.9	7.3
Marriages	2,401,000	2,452,000	10.0	10.3	10.4	10.6
Divorces	1,200,000	1,160,000	5.0	4.9	4.9	5.1
Infant deaths	39,300	39,500	10.5	10.6	10.8	11.0
Population base (in millions)			239.9	237.3	234.9	232.7

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source. Monthly Vital Statistics Report (Vol. 35, No. 6) from the National Center for Health Statistics.

Profile of Progress: The U.S.'s Century

The number of Americans earning a paycheck has risen 50 percent in the last two decades, twice as fast as the population; four times as many people travel overseas each year (some 12 million) as did in the early 1960s; and Americans have increased their standard of living on average by about 20 percent each decade since 1940, according to a new profile jointly published by the U.S. Census Bureau and The Conference Board, a not-for-profit business information service.

How We Live: Then and Now examines the progress and changes in U.S. life during the 20th century. In brief profiles, it traces change regarding people, places, the family, housing, health, education, work, women, blacks, the elderly, poverty, income and assets, living standards, and leisure. Each profile consists of one page of text and another of charts graphically displaying these trends using a variety of measures.

The profile pinpoints other trends, including the amount of goods and services consumed by the average U.S. citizen, which has doubled since 1950 – spurred on by worker productivity that also doubled.

In addition, the real net worth of U.S. households has tripled since 1950, and average family income has risen to about $33,000 from $17,725 (in 1985 dollars). Black men working full time earn 30 percent less than white men, a gap that has narrowed from nearly 50 percent in the early 1950s.

One-quarter of U.S. homes have been built during the last 15 years. Evidently many of them have two-car garages: more than 40 percent of households own at least two automobiles, up from 15 percent 25 years ago.

Today only 15 percent of men aged 65 and over still work, compared with about 40 percent in 1940 and nearly 60 percent at the turn of the century. *—LA*

How We Live: Then and Now is available from the Population Division, Bureau of the Census, Washington, D.C. 20223 or from The Conference Board, 845 Third Avenue, New York, N.Y. 10022.

TAKE A NUMBER

State of the States: Two sets of population projections, one from the Bureau of Economic Analysis (BEA), the other from the U.S. Bureau of the Census (published in 1983) take a look at the future of state population size. The BEA projections look farther into the future, to 2035, rather than 2000.

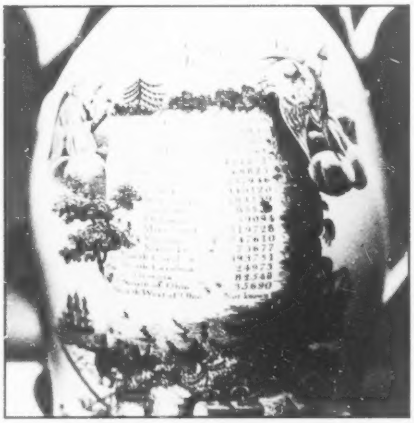
While recognizing that past trends often change, Census based its projections on the migration pattern of 1970-1980 (migration data from the 1980 Census were not available at the time). Thus, states losing population then, continue to do so to 2000, when, according to the Census projections, New York's population will decline from 17.6 million in 1980 to 15.0, and the District of Columbia will drop by nearly half, to 377,000.

The BEA's population projections are based on projected labor force sizes, which, in turn, are based upon the economic outlook for the future. In the BEA set, New York rises to 19 million by 2000 and the District manages to grow slowly, to 641,000. Based upon estimates of actual population growth since 1980, the BEA's projection for the District looks much more reliable, and its projection for New York reflects that state's growth since 1980, though growth will have to accelerate to reach 19 million by 2000.

The Census Bureau projects Florida to rise from 9.7 million in 1980 to 17.4 in 2000, while BEA projects Florida at only 14.6 million in 2000. Based on Florida's continued rapid growth from 1980 to 1985, the Census Bureau's prognosis looks more feasible. Comparing these two series is an intriguing exercise which leads one to suspect that both "economically driven" projections and old-faithful demographic ones can have a lot to offer. If only they could get together.

Pretty Good Longevity, Eh?: Mais oui. Statistics Canada has produced a series of life tables for the country and for each province for the period 1921-1981. In 1981, Canadian life expectancy at birth was 72 years for men and 79 for women, a seven-year gap which has widened from two years in 1921. Saskatchewan has had the highest life expectancy since 1931, eight years better than New Brunswick, the lowest on this measure. That gap has, however, narrowed to two years. The report, *Longevity and Historical Life Tables, 1921-1981 (Abridged), Canada and the Provinces*, is available from Statistics Canada for C$20 (C$21.50 outside Canada) by calling (613) 993-7276. *—CH*

ADDENDA


Art Haupt

Census Memorabilia.

This Early American pitcher depicts in china the state-by-state population totals from the U.S.'s first decennial census in 1790. (The final population count was 3,929,214.) Couldn't the Census Bureau defray some of the $2 billion cost of the 1990 Census by shrewd sales of similar high-quality commemorative items? (Pitcher in the collection of the Smithsonian Institution.)

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

AMERICAN WOMEN IN TRANSITION, by Suzanne M. Bianchi and Daphne Spain. New York: Russell Sage Foundation, 1986. 286 pages. $32.00. ISBN 0-87154-111-4

This volume is the first in a series entitled "The Population of the United States in the 1980s," aimed at converting the statistical yield of the 1980 Census into authoritative analyses of major trends and changes in American life. The series' historical predecessors are the Census Monographs first published in the 1930s. The series was revived in 1950 and 1960 by the Social Sciences Research Council and the Russell Sage Foundation, with the collaboration of the U.S. Bureau of the Census.

American Women in Transition is a review of the demographic and social changes affecting U.S. women during the past 20 years, in such areas as fertility, family structure, and employment. Data sources include an in-depth analysis of the 1960, 1970, and 1980 decennial censuses (and to a lesser extent the 1940 and 1950 censuses) and Current Population Surveys (a monthly household survey conducted since the late 1940s, published the "P-Series"). Census data are complemented by the National Center for Health Statistics' birth, death, marriage and divorce rates, as well as augmented by statistics on the conferral of college degrees from the National Center for Educational Statistics. The volume includes a solid 23-page bibliography and an analytic index.

When possible, the authors have attempted to provide a cohort, as opposed to a period, analysis of the data, resulting in a broad overview of women's recent, event-filled social and demographic history.

Other topics to be treated within the series – which is scheduled to contain 18 volumes – include ethnic groups (blacks, Asian Americans, Hispanics, foreign-born, Native Americans); spatial dimensions (migration and immigration, neighborhoods, housing, regional and metropolitan growth and decline); and status groups (income levels, work, families and households, children, women, the elderly). Scholars and enthusiasts of women's studies, census researchers and buffs, and social scientists will appreciate this volume as well as the other volumes within this landmark series of census monographs.

– Denise Molajo

POPULATION GROWTH AND POLICIES IN MEGA-CITIES, Population Policy Series, by the Dept. of International Economic and Social Affairs, the United Nations. New York: United Nations, 1986. (ST/ESA/SER.R/) Copies available from the Population Division, United Nations, New York, NY 10017.

This timely series focuses on the world's mega-cities, defined as those urban areas whose population is anticipated to grow to at least 8 million inhabitants by 2000.

It examines the formulation, implementation, and evaluation of population policies from a broad perspective, emphasizing the reciprocal links between population and development in the spirit of the World Population Plan of Action.

Each of the technical papers in this series contains five major sections on (1) demographic trends, (2) background information on the city's economy, (3) early decentralizing strategies, (4) key issues in managing urban growth, and (5) public investment and revenue.

To date, papers on four cities have been prepared by the Population Division of the Dept. of International and Economic and Social Affairs of the United Nations Secretariat: Calcutta (Population Policy Paper No. 1), Seoul (No. 4), Metro Manila (No. 5), and Bombay (No. 6). In addition, six more city papers are forthcoming: Delhi, Bangkok, Mexico City, Sao Paulo, Lima, and Dacca. Also of note within this series are the Population Policy Briefs for Developing and Developed Countries (Nos. 2 and 3), which provide brief country-by-country summaries of current population-related policies in developing and developed nations.

This series should prove to be a valuable resource for researchers, policymakers, urban planners, and demographers who are interested in country-specific and/or regional demographic issues relating to the world's explosive urban growth.

– Denise Molajo

Books Received

CITIES OF THE WORLD, 2nd edition supplement, edited by Margaret Walsh Young and Susan L. Stetler. Detroit, Mich.: Gale Research, 1986. 785 pages. $84.00.

CLOSING THE GAP: Forty Years of Economic Progress for Blacks, by James P. Smith and Finis R. Welch. Santa Monica, Calif.: Rand Corp., February 1986. 128 pages. $10.00.

FERTILITY DECLINE IN A TRADITIONAL SOCIETY: The Case of Bali (Indonesian Population Monograph Series No. 4), by Kim Streatfield. Canberra, Australia: Australian National University, 1986. 177 pages. $12.95.

MIDDLE EAST ECONOMIC HANDBOOK, by Euromonitor. London: Euromonitor (dist. by Gale Research, Detroit, Mich.), 1986. 487 pages. $80.00.

SOCIOECONOMIC INDICATORS OF WOMEN'S STATUS IN DEVELOPING COUNTRIES, 1970-1980, by Constantina Safilios-Rothschild. New York: The Population Council, 1986. 79 pages plus annexes. Available upon request from the Office of Communication.

SOLVING WORLD HUNGER: The U.S. Stake, by E. Boyd Wennergren et al. Cabin John, Md.: Seven Locks Press, 102 pages. $7.95.

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SPOTLIGHT

FIJI

Population (mid-1986 est.): 700,000
Land area: 7,055 sq. miles
Births per 1,000 pop. (1984 est.): 28
Deaths per 1,000 pop. (1984 est.): 5
Rate of natural increase (1984): 2.3 percent
Total fertility rate: 3.5
Infant mortality rate (1984): 16 infant deaths per 1,000 live births
Life expectancy at birth (1982): 68 years
GNP per capita (1983 est.): $1,790
Capital: Suva

by Richard Weil

If you drew an inverted "Y" with the ends at Honolulu, Sydney, and Auckland, Fiji is where the three lines would intersect. By Pacific standards this is a large country, with 7,055 square miles, a bit smaller than New Jersey. Two islands, Vanua Levu and Viti Levu, constitute 87 percent of the land area. They are rugged, fertile, and well watered volcanic islands with excellent beaches. Of the other 300-plus islands, two-thirds are uninhabited.

Most Fijian natives are Melanesians. Their ancestors may have migrated from Southeast Asia, perhaps mixing with a Negrito population along the way. Fijians in the eastern part of the group, and on the outlying dependency of Rotuma, are lighter-skinned Polynesians. However, Fiji is alone among the smaller Pacific states in that the original inhabitants are a minority in their own country.

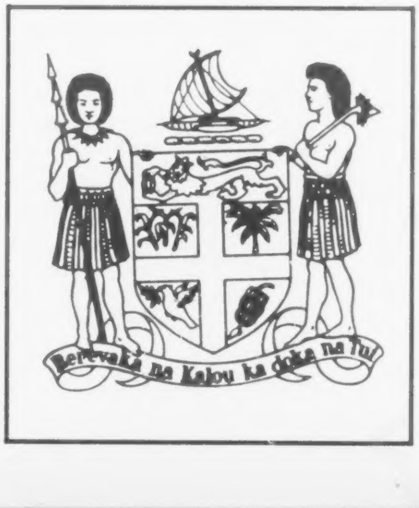
Historical reasons account for the unusual population mixture found in Fiji. Because the natives were cannibal warriors, Europeans were slow to explore the islands. In the early 19th century, European traders settled there, but the lack of a central government led to constant legal problems between them and the natives. In 1874 Britain annexed the islands, and the local kingdoms disappeared.

With the natives no longer having work obligations to their kings, and a measles epidemic having killed about a quarter of the population, Britain found itself with a labor shortage in Fiji. Interested in developing sugar plantations, the colonial government brought indentured Indians there.

The indentured workers came from 1879 until 1916, followed by free immigrants for another 30 years. The first Indians came from the Ganges plains and spoke Hindi or Bihari. Later Gujeratis, Punjabis, Nepalese, and Tamils arrived. While the Fijians are now Christian, most of the Indians are Hindus, though there are also Sikhs and Muslims. The caste system did not survive the migration, but deep social and ethnic differences remain among all groups.

The Indian migration had profound effects on Fiji. After their terms of service had ended, two-thirds (48,000) of the workers remained. Since 30 percent of the migrants were women, the number of Indians quickly grew. By 1946 they slightly outnumbered the native Fijians.

The Indians' total fertility rate was about 6 children per woman in 1949, substantially higher than the Fijian figure of about 4. In the intervening years, however, both groups' fertility rates have converged as well as declined, and there is little fertility difference between the groups today.


Rerevaka na Kalou ka doka na Tui

A national family planning program began in 1962. The Fiji government is officially concerned about the country's economic progress being offset by population growth, and has set birth rate targets, most recently a rate of 25 per 1,000, which it has come close to meeting. It is also concerned about high rates of rural-to-urban migration and about immigration. At the same time it is trying to discourage emigration of skilled labor by bilateral agreements with neighboring countries and better working domestic conditions.

Fiji's national development plan sets a new demographic target: reduction of population growth to 1.9 percent by 1990.

With sharp economic and social differences between Fiji's peoples there is a potential for trouble. Two factors have helped to maintain peace. First, there are compromises between the ethnic groups. Notably, when Fiji became independent in 1970, many of the seats in parliament were reserved for candidates elected by their own groups. Second, the economy has remained strong. The central position of the islands has led to heavy air traffic, with tourist and resort benefits. Fiji is also rich in natural resources, such as copper, gold, sugar, and hydroelectric power. As long as these beneficial conditions continue, Fiji seems likely to remain a stable Pacific nation.

Richard Weil is Assistant Professor of Geography, Bemidji State University, Bemidji, Minn.

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POPULATION TODAY

Vol. 14, No. 12 December 1986

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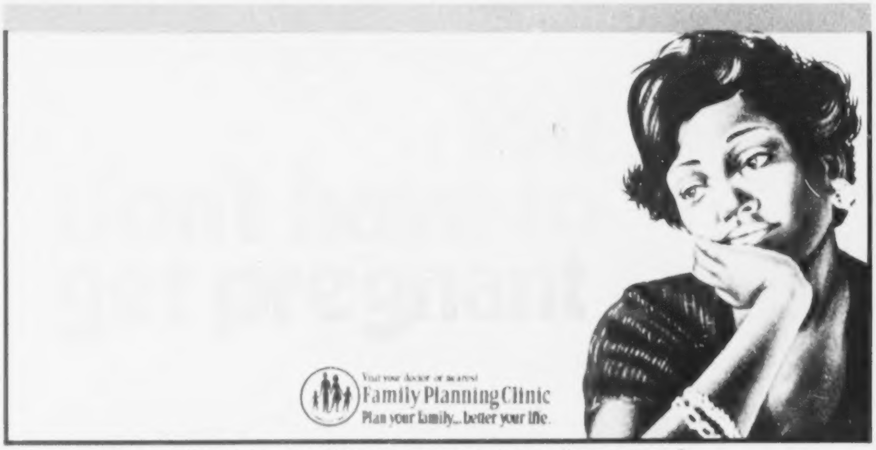

Visit your doctor or nearest
Family Planning Clinic
Plan your family... better your life.

U.S. assistance affects family planning everywhere. See page 3.

PRB A publication of the Population Reference Bureau, Inc.

FROM THE EDITOR'S DESK

The Holiday Season is upon us – and so is a tidal wave of 2.2 billion Christmas cards in U.S. mails (the annual haul, according to a Hallmark spokesperson), a tsunami of paper roughly equal in weight to the battleship *Missouri* (55,000 tons).

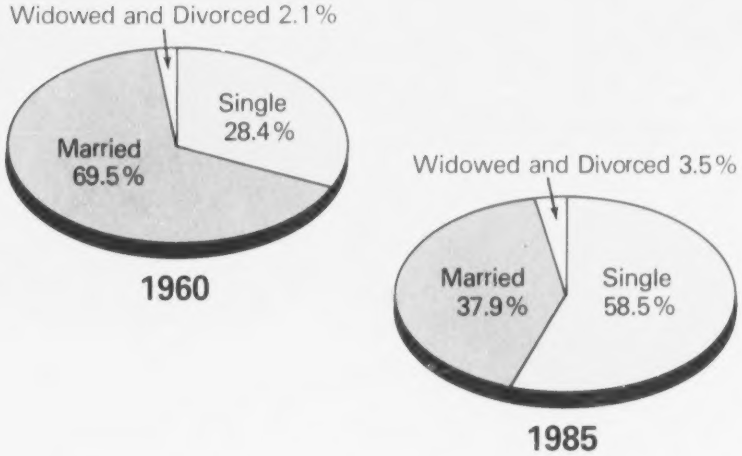
But when you factor down this giant totality, it works out to a little more than 9 cards per person; 12 cards per person 16 years of age and over. All of a sudden, 2.2 billion greeting cards seem like a trickle. People must be using the telephone.

The U.S., we sometimes forget, is Big. It holds nearly a quarter of a billion people (that's B for billion), or 2.4 x 10 to the 8th power, to be more scientific. Its urban areas (including 176 cities over 100,000) have as many people as India's. Tiny Rhode Island alone is more populous than 41 of the 171 countries on PRB's *1986 World Population Data Sheet*. Some quantitatively impressive stats to ponder, during what we hope will be a qualitatively Very Happy Holiday for *PT* readers everywhere!

– Art Haupt

SPEAKING GRAPHICALLY

Marital Status of U.S. Females, 20-24



U.S. women are postponing marriage. The median age at first marriage for women increased from 20 years in 1960 to 23 in 1985, according to the National Center for Health Statistics. The result: A marked rise in the populati~~on of~~ ~~U.S. single~~ women aged 20-24.

Source of chart data: U.S. Census Bureau

POPULATION TODAY

VOL. 14, NO. 12 **December 1986**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

1986 by the Population Reference Bureau, Inc.

ISSN 0749-2448

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In addition to POPULATION TODAY, PRB members receive annually four in-depth POPULATION BULLETINS, two wall charts (the WORLD and UNITED STATES POPULATION DATA SHEETS), the quarterly population education newsletter, INTERCHANGE, with two accompanying teaching modules, and POPULATION TRENDS AND PUBLIC POLICY papers as they appear.

	U.S.	Outside the U.S.
Individual	$40	$50
Educator* (30% discount)	28	35
Student* (50% discount)	20	25
Library/nonprofit organizations	50	65
Other organizations	250	315

*Educators and students should send supporting documentation.

U.S. Population Aid Is Surviving

November's Congressional elections hinged on many local and national issues, and international population assistance was probably not uppermost in voters' minds. (While polls have shown the U.S. public supporting it, population assistance has never been an issue of particularly high visibility.) Nevertheless, as the smoke clears, the election results could have implications for the future of population assistance.

By virtue of their eight-seat pickup, Senate Democrats now hold a 55-45 majority in that chamber and hence get to choose the Senate Committee chairs when the 100th Congress convenes in January 1987. (It was the Republicans who had this happy option from January 1981 through 1986.)

Committee chairpeople put their personal stamp on a committee's agenda and legislative products. And taken on balance, most Hill watchers believe that there may well be a more friendly climate in Congress for international population assistance.

Doing the Limbo

The Population Crisis Committee (PCC), a Washington-based advocacy group, tallies Congressional attitudes toward population assistance. After the November election they estimated that the Senate will gain one pro-population-assistance vote, bringing the number to 52. The House showed a three-vote shift, to 196, still well short of the 218-vote majority. According to this tally, the Senate remains the chamber that votes more consistently for population assistance.

Sharon Camp, PCC's Vice President and Director of Education and Public Policy, voiced her opinion that the most important population consequence of the election will be the ascendancy of Sen. Daniel Inouye (D-Hawaii) to the chair of the Senate Appropriations Subcommittee on Foreign Operations. Inouye, long favorable to foreign assistance, is in line to replace Sen. Bob Kasten (R-Wis.). This subcommittee writes the foreign-aid appropriations bill.

In the 1980s, foreign-aid funding has taken its share of lumps during the legislative process. Prior to last year, foreign aid levels had risen each year for five years. The increases, however, were generally in the categories of military and security aid, including economic support funds (ESF), to countries considered strategically important; of this, about half goes to Israel and Egypt.

During the 1980s, Congress repeatedly raised the level of population aid. For FY 1987, the outcome was different

Development assistance, which includes population, has actually shrunk during this period, when adjusted for inflation. But international population aid itself fared tolerably well until last year, with Congress repeatedly raising the level of funding above that offered in the Administration's budget. In Fiscal Year 1984, for example, Congress approved $240 million (the Administration had asked for $212 million). In FY 1985, Congress passed $290 million ($250 million asked).

In FY 1986, Congress passed $250 million ($250 million asked); this was later reduced to $239 million as part of across-the-board budget cuts mandated by the Gramm-Rudman-Hollings deficit-reduction law.

For FY 1987, the outcome was different. This time around, the Administration asked for $250 million and the Congress responded with $234.6 million (a compromise between the House's $239 million and the Senate's $230 million). The reason: budget constraints and the threat of Gramm-Rudman-Hollings. Except for entitlements and certain poverty-directed programs, nearly every other federal program was suffering similar cuts.

Like the Limbo stick featured in a popular dance of the distant past, the Gramm-Rudman-Hollings goals are becoming increasingly difficult to Limbo under.

Assuming tax receipts for FY 1988 come in as estimated and federal funding levels are frozen, the FY 1988 deficit is estimated to be $61 billion over the Gramm-Rudman-Hollings target for that year. This shortfall would have to be made up from the 18 percent of federal programs vulnerable to budget cuts (assuming that entitlements and defense are exempted). Since these programs' budgets total about $180 billion, they be subject to blanket cuts of 30 percent.

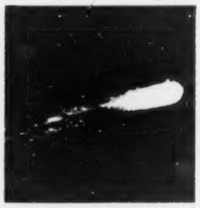
Continued on page 6

Ghana National Family Planning Programme

Family planning worker in Ghana

1986—The Year in Population

1986 had its population highs and its population lows. Indisputably, the "high" was the once-in-76-years appearance in our inner Solar System of Halley's Comet. (The population connection? The comet's discoverer, Edmund Halley, was a pioneer demographer and originator of the life table; see the Jan. *PT.*)


Comet

The "low" was probably the publication of West Germany's record low 1985 total fertility rate (TFR) which dipped to 1.28 average lifetime births per woman.

Perhaps the U.S.'s most important population-related event was the passage of the most far-reaching immigration reform legislation since 1965. Debated for years in Congress, the bill was declared legislatively dead in September but was miraculously revived in October when a controversial side issue -- amnesty for illegal agricultural workers -- was resolved in the House of Representatives. The law's main features include employer sanctions and amnesty for illegal aliens residing continuously in the U.S. since 1982. (See Oct. and Nov. *PTs.*)

Two countries reached fertility-reduction milestones in 1986. South Korea announced its achievement of replacement-level fertility, with a TFR of 2.1 children per woman. Singapore's TFR dropped to 1.7. With its goal of low fertility thus achieved, Singapore's national Population and Family Planning Board is being disbanded.

Immigrants

Other demographic headlines in the U.S. included the publication of a study by university researchers which detailed the chances (reported as bleak) for marriage of never-married college educated women. (See Sept. *PT.*) These statistics were tossed back and forth, while the media alternately blamed women for the fate ordained for them by the statistics, and chastised the researchers for terrorizing women with data.

The ruckus was quelled somewhat by another study, this one by demographer Jean Moorman, whose calculations gave higher estimates of marriages among older women. Another crisis solved. (See Oct. *PT.*)

The famous marriage study aside, 1986's most eagerly awaited and energetically debated demographic study was a provocative report, *Population Growth and Economic Development: Policy Questions,* issued by the National Academy of Sciences (NAS) in March. The NAS's Committee on Population was commissioned by AID to reexamine the links between population and economic growth. The Committee took a more guarded view of the adverse effects of population growth on economic development. It concluded that, in general, slower population growth is a positive factor in achieving development, though there exist a few positive aspects of population growth. (See Mar. *PT.*)

IUD

In August, AID announced its decision to withdraw the U.S.'s $25 million 1986 contribution to the UN Fund for Population Activities (UNFPA), charging that the UNFPA contributes to China's population activities, some of which, in AID's view, promote coercive abortion and sterilization practices. But China's government insists that such abuses do not reflect official policy and are being corrected. U.S. policy bars funding of nongovernmental organizations that promote abortion in other countries. Whether or not the UNFPA fits that description is a matter of controversy, since UNFPA supplies China with demographic and teaching assistance and does not sponsor Chinese family planning programs. (See Sept. *PT.*)

The IUD is essentially history as a contraceptive choice for U.S. women. The last major manufacturer, G.D. Searle, withdrew from the U.S. market the IUDs it manufactures because of "unwarranted" lawsuits and the expense of liability insurance. Searle manufactures the Copper-7 and Tatum-T IUDs. This action left only one IUD available in the U.S., the hormone-releasing Progestasert-T, manufactured by the Alza Corporation. Alza subsequently limited distribution of its IUD to 1986 customers at 1985 buying levels. (See Mar. and July/Aug. *PTs.*)

—*J.A.*

SURVEY REPORT

Costa Rica

Costa Rica is demographically renowned as one Latin American country which has experienced a substantial decline in fertility since 1950. That decline, however, leveled off at 3.4 children per woman, far short of the "replacement level" of about 2.1 required for an eventual stable population size. Now, the latest survey from that country indicates that fertility has risen.

Early results from a national fertility survey taken in the first months of 1986 by the Asociación Demográfica Costarricense estimate a total fertility rate (TFR) of 3.7 average lifetime births per woman in 1986, up from 3.4 in 1982. These survey estimates agree quite closely with registered vital data, which are considered to be complete.

Contraceptive use is quite high among Costa Rican women; nearly 70 percent of married or cohabiting women reported that they were using a method. It seems clear that family planning allows Costa Rican women to have the number of children they desire, but that number is considerably higher than the 2 children per woman assumed in most population projections for that country.

In the 1986 survey, 54 percent of the married women interviewed who had two living children said that they wished to cease childbearing. This, of course, means that nearly half want more children. About one-third of the women with three children said that they want more children, indicating a national level of desired childbearing above the two-child-per family level.

The pill was the most commonly used contraceptive method among married women, with 19.3 percent of the respondents using it, but female sterilization (16.5 percent) and the condom (12.4 percent) were also significant. Traditional methods were used by only about 10 percent of respondents.

—*C.H.*

A Popu-landian Tale

Populandia, PRB's mythical mini-continent, marches on. As of Dec. 31, 1986, its population is estimated to be 704,244,756, none of whom is more than nine years old.

As faithful *PT* readers will recall,* that's because the verdant South Pacific island nation itself was founded only nine years ago. Beginning Jan. 1, 1978, this empty patch of volcanic real estate (160,000 sq. miles) began serving as a sanctuary for all the world's natural increase (i.e., the 60 percent "surplus" of births over deaths; for every death on earth, there are 2½ births).

The goal was to alleviate population pressures the world over. But this experiment in population redistribution has now become the world's third most populous country, containing one out of every seven people in the world, and adding another 226,779 people per day.

In 1978, Populandia received only 200,677 newcomers every day; then, however, the statistical base – the world's population – was smaller, 4.2 billion.

Since then, roughly 1.1 billion people have been born, and 0.4 billion people have died. (Tragically, one out of 10 of those 1.1 billion births wound up in the deaths column, according to global mortality statistics. One out of every four deaths on earth occurs to those under 5.) The remaining 0.7 billion increase in world population in those nine years became migrants to Populandia.

The continent, whose purpose is to relieve population crowding, is itself getting on the congested side (4,400 people per sq. mile, a continent as densely populated as Denver, Colo.). And not only that – in not too many years, Populandians themselves will be of childbearing age. By that time, a "Populandia II" may have to be created next door. *– A.H.*

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*See, e.g., *PT*, December 1985, December 1984, and numerous pre-1984 issues of *Intercom*.

PRB's Event-Filled Year

Increased international activity highlighted 1986 at the Population Reference Bureau, Inc. Indeed, PRB's world travelers covered the globe. From Addis Ababa to Zimbabwe, from Bangladesh to Peru, PRB staff members were there, providing support to conferences and spreading the word about population.

Back in Washington, DC., staff members enjoyed their first full year at 777 14th Street NW, and watched the ranks of the staff swell to a peak of 33.

All of PRB's publications were redesigned in late 1985, and the new look debuted in January 1986. All publications now sport a PRB "family" appearance, with a new logo, bold strokes of color and compatible typefaces. The graphics ante rises.

PRB's IMPACT (Innovative Materials for Population Action) project moved ahead in 1986. Initiated in 1985, IMPACT produces and distributes handsomely packaged population-related publications for a targeted audience of Third World policymakers. Team members produced their first thematic booklet and poster, "Family Planning Saves Lives," for distribution to 5,000 influential developing country nationals (see photo, page 7). In addition, the team supported four international conferences with booklets and posters, and negotiated subcontracts in Ghana and Turkey. (IMPACT is funded by the U.S. Agency for International Development [AID].)

In fall of 1986, PRB was awarded a subcontract of The Futures Group's OPTIONS project, also funded by AID. PRB's portion of that project will include maintaining a database on population policy trends. In addition, PRB will sponsor the Fellows Program for developing country nationals who are studying population-policy-related subjects in the U.S. (see box at right). Fellows will become acquainted with effective methods of disseminating demographic data to policymakers. Finally, OPTIONS team members at PRB will coordinate the Observational Travel Program whereby citizens of developing countries who are formulating population policies for their home nations can travel to other countries where such policies have been successfully implemented.

With financial assistance from the Rockefeller Foundation and the AID – Development Education Program, a large and multifaceted group of PRB employees put together a kit of population-related materials for participants in Model UN conferences nationwide. Within weeks of its Nov. 1 publication, some 700 orders for this free kit flooded in.

1986 was a year for goodbyes to long-time staff members: Robert P. Worrall, President of PRB from 1979 to 1984 and since then President Emeritus and Senior Consultant, retired in November. Leon F. Bouvier retired in August as Vice President, though he continues his demographic work at PRB as a consultant. In addition, Patricia Cancellier, Director of the Population Education Program, left PRB in May for the greener grasses of Cleveland, Ohio. *– J.A.*

Call for PRB Fellows

PRB is looking for applicants to a fellows program for graduate students in population studies and other fields relevant to population programs in developing countries. Applicants must be developing country nationals.

Participants in the fellows program will present brief papers at a one-day Population Policy Seminar at the annual meeting of the Population Association of America in Chicago on April 29, 1987. In addition, in July 1987, fellows will attend a two-week workshop at PRB in Washington, DC., where they will receive further training on how to present demographic data and information clearly and usefully to policymakers.

The program is part of the OPTIONS project (see story above). Actual travel costs will be provided, along with a per diem and small stipend.

Interested candidates should write to Wendy Patriquin at PRB, 777 14th St. NW, Suite 800, Washington, DC., 20005, describing their interests, qualifications, and reasons for applying to this program. A curriculum vitae, brief description of current research and plan for explaining its policy impact, and letters of recommendation from professors are also requested. Deadline for application is Feb. 13, 1987.

Population Aid

Continued from page 3

Of course, other factors in the budget equation are not cast in concrete. The government theoretically has four options: it could raise taxes, limit expenditures still further, cut into entitlement programs, or simply abolish Gramm-Rudman-Hollings. While all these possibilities are unpopular, the latter may turn out to be the least unpopular.

The eroded consensus

In any case, challenges remain for future U.S. population programs. Legislative restrictions on the use of population funds remain in place. This has meant the cutting off of funding to the International Planned Parenthood Federation (in 1984) because of a law banning funding of nongovernmental organizations that directly or indirectly support abortion programs. In 1986, the UN Fund for Population Activities lost its U.S. funding because of its support of China's population program.

And it cannot be denied that the traditional national consensus concerning the need for foreign aid has eroded over the years. Combine that with an increasingly involved legislative process, and the chances for legislative gridlock are great.

Since 1981, Congress has succeeded in passing a foreign-aid authorization and appropriation only once. In other years, it has finessed the legislation quagmire by passing a continuing resolution, which in effect carries over the previous year's bill. This happened most recently with the FY 1987 budget.

Dramatic changes in foreign aid and population policy or funding are unlikely. Instead, the future is likely to see more continuing resolutions and serious political opposition blocking renewed funding for UNFPA or IPPF. The most significant change affecting the less developed countries might be more protectionistic trade policies.

Or so the picture seems now. Usually, the more Washington changes, the more it remains the same. But then, who would have thought two months ago that after a tradition of studied inaction on illegal migration, Congress would up and pass the Immigration and Reform Act of 1986? —*A.H.*

SOFTWHERE

The Claremont Statistical Program for Small Samples (CSPSM) is a simple BASIC shareware program for IBM PC computers (suggested contribution: $10.00), useful for quickly calculating chi-squares, Pearson r correlations, t tests, means and standard deviations, z scores, one-way analyses of variance, and simple regressions and predictions. The number of samples is limited to a maximum of 100, but CSPSM does the job quickly and easily. Available on some computer bulletin boards as STATPAK, or contact the author: Peter M. Nardi, Sociology Dept., Pitzer College, Claremont, Calif. 91711.

POSITIONS/PROFESSIONALS

Program Officer, for International Projects Assistance Services, a North Carolina-based nonprofit organization. Applicants should be knowledgeable in international family planning program development, have some field experience, and possess excellent writing and interpersonal skills. Degree in public health or related field preferred. Position requires extensive travel and fluency in French. Resume with salary history should be sent to: Executive Director, IPAS, P.O. Box 100, Carrboro, N.C. 27510.

POPULATION UPDATE

Estimated United States Population:

As of July 1, 1986	241,489,000
As of July 1, 1985	239,283,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 994.

Estimated World Population:

As of December 1986	4,977,000,000
Annual growth	83,000,000

Estimated by extrapolation of the mid-1986 population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: July 1986

	12 months ending with July					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,723,000	3,739,000	15.5	15.7	15.5	15.8
Deaths	2,097,000	2,082,000	8.7	8.8	8.6	8.6
Natural increase	1,626,000	1,657,000	6.8	6.9	6.9	7.2
Marriages	2,396,000	2,457,000	10.0	10.3	10.4	10.5
Divorces	1,192,000	1,172,000	5.0	4.9	5.0	5.0
Infant deaths	39,500	39,600	10.6	10.6	10.7	11.0
Population base (in millions)			240.1	237.5	235.0	232.9

Note: Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source: Monthly Vital Statistics Report (Vol. 35, No. 7) from the National Center for Health Statistics.

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TAKE A NUMBER

Go South, Young Person: Several well-known trends have been reversing themselves as of late in U.S. migration, according to the latest report from the Census Bureau. The South was the only region of the U.S. to gain population by net in-migration from March 1983 to March 1984, while the West did not, for the first time in decades. In addition, metropolitan counties had a net inflow from nonmetropolitan counties in that year, an opposite situation from the famous "Rural Renaissance" of the 1970s. The rate of movement increased for only the third time in the history of the Current Population Survey; in 1983–1984, 17.3 percent of the population changed residence, compared to 16.6 percent in the previous year. Migration continued to contribute to population loss in central cities. From 1983 to 1984, 3.3 million people moved into central cities and 5.1 million moved out, resulting in a net loss of 1.7 million.

Good news for migration fans: The Bureau is considering adding more detail to the 1990 Census migration question. Reasons for moving and activity one year ago may be added to the Census to provide better analyses of moving in the U.S.

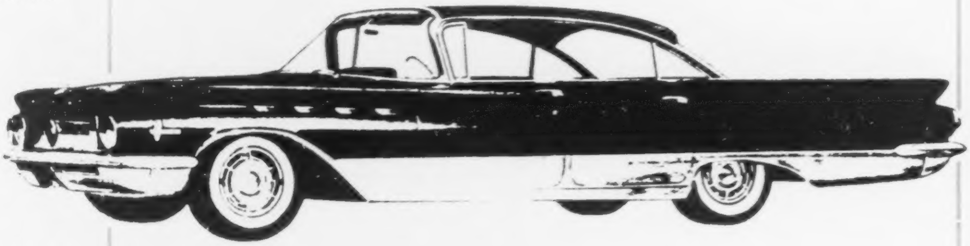
Here and There: Legal immigration to the U.S. and territories totaled 570,009 in Fiscal Year 1985, according to the Immigration and Naturalization Service. New York remains the top port of entry with 115,611, although few pass the Statue of Liberty … several European countries show resumed decrease in fertility from previously somewhat higher and stable levels; Austria declined to a total fertility rate of 1.52 children per woman in 1984 and Belgium fell to 1.56 (provisional data) … from the Census Bureau and the Conference Board's colorful new pamphlet *How We Live*: half of U.S. homes in 1940 had no full plumbing, 35 million Americans still lack health insurance today, the 1970s saw an end to decrease in poverty, and about half of all Americans spend some time in college, compared to one-fourth twenty years ago.

—C.H.

ADDENDA

Signs of the Inexorable Aging of America – V

What wheels do you yen for? If "sensible," not 90 m.p.h., is your speed, actor Hal Holbrook wants to sell you a Buick. The General Motors division has dropped its Youth pitch, after years of fitfully trying to pizazz its rather stolid image with such muscular cars as the "Wildcat" and "T Type." Now a radio and TV campaign has been mounted starring the 61-year-old Holbrook and tailored to appeal to Buick's "traditional" customer – 49 years of age, according to the company's demographers, and old enough to remember when fenders had portholes.



CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

WORLD POPULATION & U.S. POLICY: The Choices Ahead

WORLD POPULATION & U.S. POLICY: The Choices Ahead, edited by Jane Menken. New York & London: W. W. Norton for The American Assembly, Columbia University, 1986. 255 pages. $18.95 hardcover. $8.95 softcover. ISBN 0-393-02419-9.

In 1963, The American Assembly, a distinguished center for policy studies established by Dwight D. Eisenhower at Columbia University, published *The Population Dilemma* calling attention to population growth problems in less developed countries (LDCs). Recently the views expressed in that study have been called into question, particularly by critics of international population assistance and by proponents of population growth as a stimulus to economic growth.

The present volume is the result of a 1986 reexamination by the Assembly of these population issues. Editor Jane Menken's introduction traces the history of the debate and its reflection in U.S. policy, which since 1984 has maintained that population growth is a neutral phenomenon.

The 1986 National Academy of Sciences report is discussed by one of its principal architects, Samuel Preston, who reiterates its skepticism about basing international population assistance on population/development arguments. Ansley Coale, who has done a pioneering study of these relationships, finds greater consistency between LDC population and economic growth data and his original findings than did the NAS.

In other papers, Paul Demeny assesses current world demographic trends, John Bongaarts reviews fertility trends in LDCs and the variables that affect them, and George Simmons discusses factors underlying family planning program effectiveness in LDCs (the topic of another forthcoming NAS report). A paper by Michael Teitelbaum looks at the impact of immigration from LDCs on the U.S.

Finally, David E. Bell examines the policy choices open to the U.S. While calling for less population dogmatism, Bell holds to the view that U.S. and LDC interests are served by supporting strong family planning programs as part of development efforts – a view echoed in the book's final recommendations.

—Thomas W. Merrick

THE EUROPA YEAR BOOK 1986

THE EUROPA YEAR BOOK 1986, by Europa Publications, Ltd. (dist. by Gale Research Co., Detroit, Mich.). London: Europa Publications, 1986. 3,089 pages in two volumes. $235.00 per set. ISBN 0-946653-14-3.

Published annually since 1960, *The Europa Year Book* presents a wealth of comprehensive information on a country-by-country basis. It contains extensive political, economic, statistical, and commercial information, arranged by individual nation. It has the distinction of being up-to-date: published annually, each new edition reflects the research of the previous year.

Starting with the 1986 edition, country sections are arranged within a single alphabet (in the past, the countries were separated into European and non-European sections), making use of the volumes less cumbersome.

In addition to the country profiles, the yearbook offers a lengthy section on over 1,500 international organizations, which includes full descriptions of each group's functions, organization, financial structure, and activities.

Europa's researchers' methods include direct mailing to all the institutions listed in the resource, as well as consultation with national statistical offices, government departments, and diplomatic missions. The result of their research is an authoritative and readable resource for those who need quick and concise (comprehensive, if not terribly detailed) information on a specific country or international organization.

—Janine Adams

Books Received

THE AGING OF THE SOUTH AFRICAN POPULATION: Implications for Business (Occasional Paper No. 6, Business Series), by J. A. Grobbelaar. Stellenbosch, South Africa: Institute for Futures Research, University of Stellenbosch, January 1986. 58 pages.

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CONTEMPORARY MARRIAGE: Comparative Perspectives on a Changing Institution, edited by Kingsley Davis. New York: Russell Sage Foundation, 1986. 432 pages.

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LIBERIA

Population (mid-1986 est.): 2.3 million
Land area: 42,872 sq. miles
Births per 1,000 pop. (1985 est.): 48
Deaths per 1,000 pop. (1985 est.): 17
Rate of natural increase (1985 est.): 3.1 percent
Total fertility rate (1985 est.): 7.0
Infant mortality rate (1985 est.): 132 infant deaths per 1,000 live births
Life expectancy at birth (1982): 49 years
GNP per capita (1984 est.): US$470
Capital: Monrovia

by Amy R. Sheon

Independent since 1847, Liberia is Africa's oldest independent nation. It lies within the "hump" of the continent's west coast, to the east of Sierra Leone, south of Guinea, and west of the Ivory Coast. The climate is tropical, with a rainy season falling between June and November, and a dry season for the rest of the year.

Liberia was settled beginning in the 1820s by freed American slaves sponsored by the American Colonization Society. Land was purchased from local tribes for a price which makes Manhattan look expensive: 6 firearms, 1 keg of gunpowder, 3 pairs of shoes, a barrel of rum, a box of beads and a few other trinkets. The capital city bears the name of U.S. President James Monroe, who was instrumental in directing U.S. government funds toward the settlement effort.

Today fewer than 5 percent of Liberians are descendants of the emancipated slaves. The rest belong to 16 indigenous tribes, who speak more than 20 local languages. After decades of Western missionary activity, nearly every Christian denomination is represented, with Roman Catholicism and Protestantism claiming the membership of nearly half of the population. Indigenous religious practices, however, remain influential.

The settlers and their descendants, known until recently as "Americo-Liberians," ruled the nation until 1980 when Master Sergeant Samuel K. Doe seized power in a bloody coup, vowing an end to elite domination. Despite a promised return to civilian rule, a general election held in October 1985 was largely viewed as fraudulent. Frustration with economic decay and continuing corruption led to an attempted coup the following month, resulting in the arrest and death of many opposition leaders.

The oil shock of the last decade has severely hurt the Liberian economy, which is heavily dependent on imported petroleum. Despite abundant natural resources, the per capita income is less than $500. Although 70 percent of the labor force is employed in agriculture, per capita food production for the period 1980–1982 is 12 percent lower than it was in 1969–1971, and cereal imports and food aid have increased from 45,000 metric tons in 1974 to 151,000 in 1982.

Liberia's leading exports are iron ore, rubber, logs, diamonds, coffee, and cocoa. Seventy percent of all iron ore exported from sub-Saharan Africa comes from Liberia, as does 48 percent of all rubber exports. Firestone, established in Liberia since 1926, operates the world's largest rubber plantation near Monrovia. In addition, Liberia's low registration fees make it the world's largest registrar of ships – more than 2,000 ships fly the Liberian "flag of convenience."

Modest economic growth is barely outpacing population growth. (Per capita GNP has increased 0.9 percent per year over the last two decades.) As with many other nations on the African continent, rapidly declining mortality has not been offset by lowered fertility. While the crude death rate has fallen from an estimated 27 deaths per 1,000 population in the early 1950s to 17 in 1980, the crude birth rate has remained above 40 births per 1,000 in this time period, and may have risen in the last decade. As a result, the rate of natural increase has risen from 1.0 percent in 1950–1955 to 3.4 percent in 1975–1980.

Demographic data from Liberia are limited and dated. While three censuses have been conducted in the last three decades, the latest, completed in 1984, has not yet been processed. Thus, many population statistics are estimates and projections based on the 1974 Census. However, new data should be available shortly from the Liberian Demographic and Health Survey, conducted between February and July 1986 by the Ministry of Planning and Economic Affairs, with technical assistance provided by the Institute for Resource Development of Westinghouse. This nationwide survey of approximately 5,000 women aged 15-49 collected information on fertility and desired family size; family planning knowledge and use; childhood immunization, disease, and mortality; and socioeconomic and educational information.

Amy R. Sheon is Project Associate Country Monitor, Demographic and Health Surveys, Westinghouse Health Systems.

Amy R. Sheon

Children in Liberian village.

POPULATION TODAY

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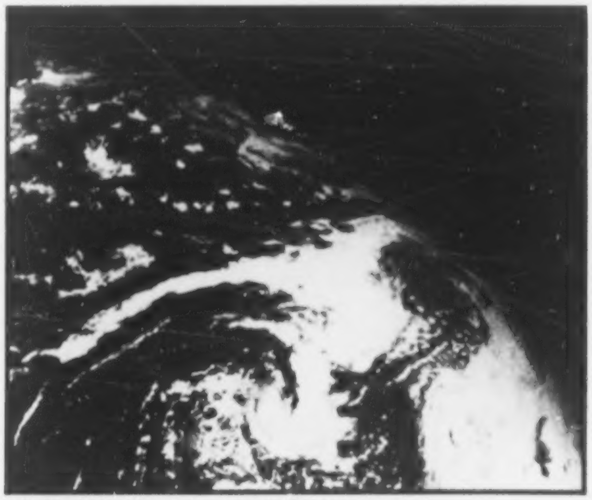

What does the future hold? See page 3.

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FROM THE EDITOR'S DESK

The Red Queen's favorite word was "moral"; *PT*'s favorite word, we have come to realize, is "inexorable."

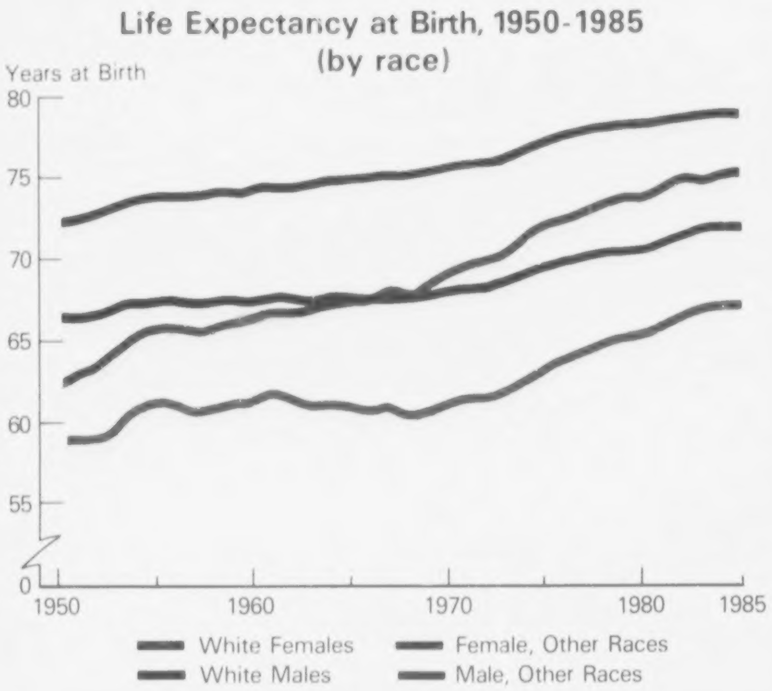
Ultimately from the Latin (*in* [not] + *exorare* [to prevail upon]), inexorable means that no plea will budge something from its predestined path: "Not to be moved by entreaty or prevailed upon; relentless; inflexible."

Shakespeare's Romeo describes his passionate intent as "More inexorable far/Than empty tigers or the roaring sea." We population writers are tempted to describe our passion for mathematical plots in equally momentous terms. As in, "Bouvier and Gardner predict an inexorable flow of newcomers to the U.S." (November 1986 *PT*); "a demographic trend inexorably reshaping U.S. society is the aging of the population" (September 1986 *PT*); or *PT*'s perennial series, "The Inexorable Aging of America."

But human trends are less relentless than the roaring sea; they may be petulant pussycats sometimes, but that doesn't make them empty tigers. So in the future, if at all possible, we'll try to be less momentous in our prose; maybe next time we'll make it "persistent flow of newcomers"; "presently shaping U.S. society"; "The Inertial Aging of America."

—Art Haupt

SPEAKING GRAPHICALLY



Source: National Center for Health Statistics

POPULATION TODAY

VOL. 15, NO. 1 **January 1987**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Washington, D.C. 20005
(202) 639-8040

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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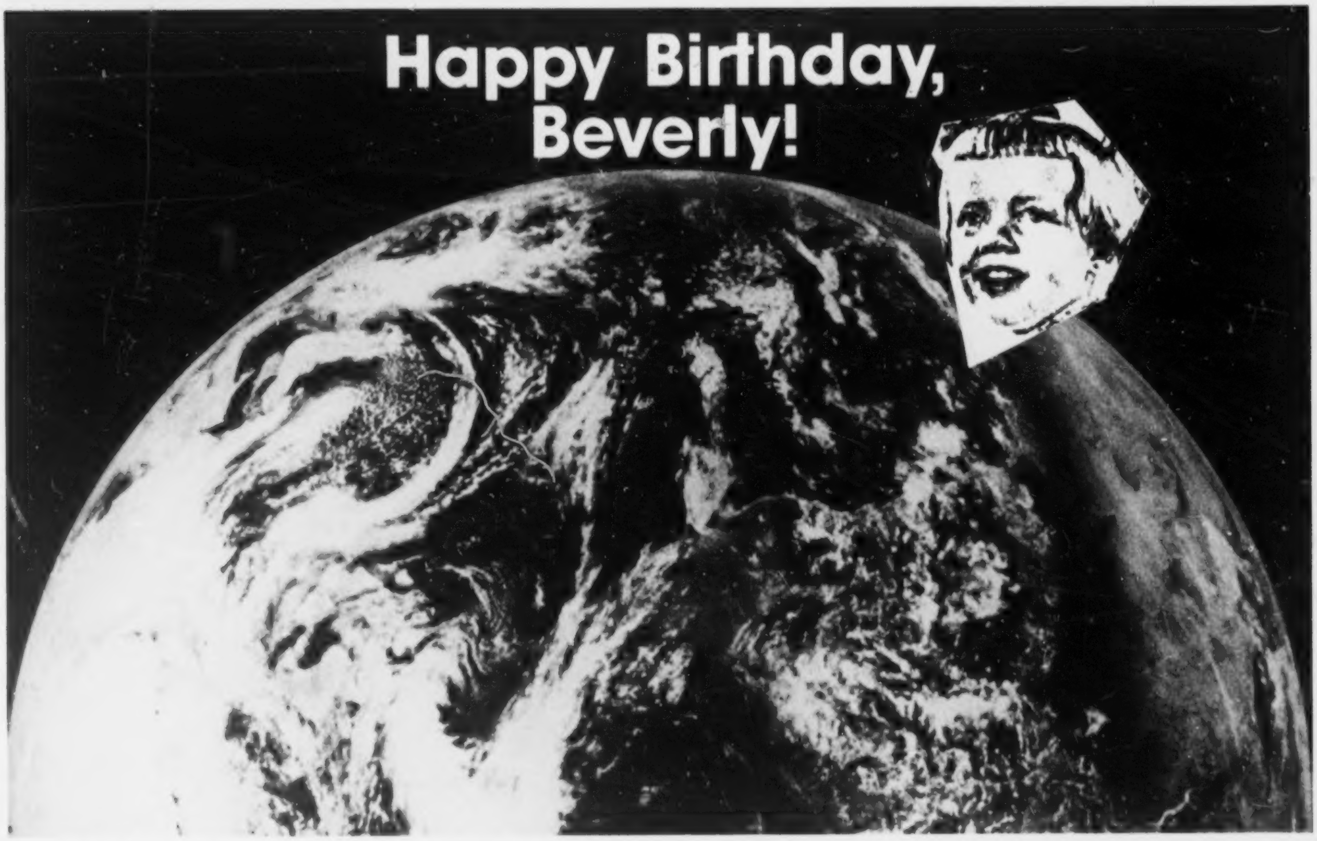
Happy Birthday, Beverly!



Call her Beverly. On Jan. 1 she arrived in the world, the hypothetical first U.S. birth of the new year 1987 – a year that will see 3,700,000 U.S. births. Welcome, Bev, the first baby born under the new U.S. tax laws.

What kind of life awaits this new arrival to the nation's cradles? That's a hard question to answer in the particular, but *PT* can offer aggregate, demographic (i.e., general) answers. And many questions about the future can be answered with little more than a glance at a computer monitor – and the calendar.

Jan. 2, 1987 – B's father, a forensic toxicologist, buys "Baby on Board" signs for his Volvo and B's mother's BMW.

1990 – B. is accepted by a neo-Montessori nursery school and matriculates.

1992 – B. watches TV special, "Perry Como's Walla Walla Christmas" (Sing to us, Mr. C.)

1992 – B. enters grade school in the midst of the 1990s teacher shortage. Classrooms are crowded, and *Time* magazine fusses "An apple for whom?"

2001 – The 21st century begins. Like most U.S. residents born in 1987, statistically speaking more than 80 percent of Beverly's life will be spent in the 21st century.

2005 – B. graduates from high school.

2006 – *Newsweek* publishes a cover story on failing Japanese economy, "Japan: Setting Sun?" and a national newspaper blares "We USA Japan!"

> Like most U.S. residents born in 1987, more than 80 percent of Beverly's life will be spent in the 21st century

2008 – B. graduates from college, a member of the class of "aught-eight" with an Engineering degree in Thermal Ceramics Design.

2010 – B. enters the labor force, working for Sony, a subsidiary of GE. She designs thermodynamic oscillators (TOs), a power source utterly essential to the national economy, which won't even be conceived of until 2001. At first, TOs were a plaything of the well-to-do, but soon the price had tumbled and the two-TO family became commonplace. The introduction of these marvelous machines has meant the final downfall of IBM, which had been slow to recognize their potential for widespread use.

2017 – B. signs household formation contract (HFC) with Rex Rumfold, a biomass custodian who works for the Harlingen, TX subway system. By this time, median age at first HFC has risen to 32.3. Their contract is the standard 48-month variety with asset pooling and a 24-month extension option.

2020 – B. bears her first child, Jason, a healthy boy, who during gestation benefited from standard gene-grafting procedures.

2021 – B. and Rex decide not to exercise their extension option and throw a wild party in their 212th floor Harlingen condo to celebrate the successful completion of their HFC.

2032 – B. signs second HFC with Roy Renfro, a Palm Beach social worker.

2033 – B. and Roy terminate their HFC under option 272(j) when Roy expresses desire to work in the depressed areas of Ohio and B. fears the danger of crime and martial law in the North.

2034 – The U.S. population stops growing due to natural increase, as was predicted by the Census Bureau back in

Continued on page 8

RU-486: A Revolution in Birth Control?

A new experimental oral drug developed in France holds the possibility of serving as a "once-a-month" pill as well as an abortifacient.

Invented by University of Paris professor Etienne-Emile Baulieu, RU-486 (the RU stands for Roussel Uclaf, the French pharmaceutical firm which financed its development and will market the drug) blocks progesterone, the hormone that prepares the uterus for the implantation of the fertilized egg.

Technically speaking, it binds itself to the progesterone receptors in the endometrium without fulfilling the functions of progesterone, thus blocking the progesterone's action. Menstruation then occurs, emptying the uterus.

RU-486 is currently undergoing trials in France. Baulieu, who spoke at a Washington, D.C., conference sponsored by Catholics for a Free Choice on Dec. 6, 1986, expects to see it approved by the French Ministry of Health by June 1987.

RU-486 can be used alone in the early stages of amenorrhea (from 4 days before expected onset of menstruation to 13 days after). Any time after that, the drug would be taken with a small dose of prostaglandin.

According to researchers, one advantage of RU-486 is that it bears few side effects. The user can expect bleeding with the onset of menstruation (bleeding induced by RU-486 can be heavier than regular menstruation) as well as possible cramps. The long-term effects of once-a-month use have yet to be determined, however.

In part because of the uncertainty of long-term effects, Baulieu does not currently encourage the use of RU-486 on a regular monthly basis. Instead, he thinks it should be used as a backup to the less-than-perfect contraceptives now available.

A significant advance in birth-regulating drugs, RU-486, because it involves blocking or terminating implantation of the embryo, carries with it some of the questions of the abortion controversy. Pro-life leaders have already expressed consternation over the potential implications of the drug. Its ultimate use would be to induce abortion in the privacy of the woman's home, out of the reach of outside interests. (It is likely in such a situation, though, that conventional abortions in clinics would continue to be performed.)

Baulieu holds hopes for it as an over-the-counter drug. But for the time being, and until years of extensive studies have been performed, it should, he said, be used only under a doctor's supervision.

Even if the drug passes muster in France and is approved for general use there, will the U.S. ever see its widespread use? That question is open to debate, but the prospect currently seems doubtful. According to Jacqueline Forrest, research director at the Alan Guttmacher Institute and a panelist at the CFFC conference, "It is highly improbable that RU-486 will be available to women in the U.S. in the forseeable future." Among other reasons, Forrest cited the current liability situation for U.S. pharmaceutical firms. Because of these concerns, she said, there are no present plans for any U.S. firm to introduce RU-486 onto the market. *—J.A.*

New Commission to Attack Infant Mortality

The U.S. Congress has authorized the establishment of a national commission "with the clear mandate to vigorously attack the problem of infant mortality in this country." President Reagan signed the legislation into law in October 1986.

In the one year allotted it, the commission's mandate is to examine and identify federal, state, and local resources whose activities have an impact on infant mortality through providing prenatal care to low-income women, such as the Women, Infants, and Children program (WIC), Medicaid, and public health facilities.

In the view of the Senate sponsor of the bill, Sen. Lawton Chiles (D-Fla.), a small investment in pre- and postnatal care will pay off in the significant reduction of low birthweight babies and a lower infant mortality rate (IMR). With the commission, Chiles seeks to reduce barriers to medical services, nutritional support, and health care for pregnant mothers and infants.

The U.S. IMR is 10.6 infant deaths per 1,000 live births, as of August 1986. While this is low by historical standards (only 30 years ago, the U.S. IMR was 26.0), the U.S. is behind at least 16 other developed countries in this measure. The country with the lowest measure is Finland, with an IMR of 6.0. If the U.S. had Finland's infant mortality rate, some 17,000 U.S. infant lives would be saved each year.

One activity of the commission will be to coordinate and focus the efforts of the many governmental and private agencies nationwide that have been working toward the reduction of infant mortality.

In the end, the commission will recommend a national policy designed to reduce and prevent infant mortality, including recommendations concerning appropriate roles for the federal government, states, local governments, and private sector. In addition, the commission is to recommend to Congress and the President the specific changes needed within federal laws and federal programs to achieve an effective federal role in preventing infant mortality.

The 15 members of the commission will include two senators; two members of the House; three representatives of state and local government, one of whom will be a governor; the Secretary of Health and Human Services; the Comptroller General of the U.S.; and six at-large members "with demonstrated expertise in maternal and child health."

Congress has authorized the commission, but has not appropriated the funds for it. The commission's proposed budget is $1 million. The appropriation process will start with the 100th Congress at the beginning of 1987; it is expected to take seven to eight months. Thus, the commission may begin its work in 1987, though it may well be delayed until 1988. *—J.A.*

New Data Sheet Observes UNICEF's 40th

In collaboration with UNICEF, PRB has produced *Children of the World*, a wallchart commemorating UNICEF's four decades of service to children. UNICEF had its beginnings in post-World War II relief efforts in Europe, but conditions for children throughout the developing world argued strongly for a permanent agency.

1946
1986
Children of the World

The new data sheet provides statistics on child health and socioeconomic conditions for the world's countries and clearly indicates that, while a good deal of progress has been made, there remains a great deal of work to be done on behalf of the world's smallest citizens.

Children of the World lists a new measure of mortality used by UNICEF, the death rate for infants and children below age five per 1,000 live births in a given year (abbreviated U5MR). The world U5MR is 91. Countries are arranged on the data sheet using their ranking on this measure, a somewhat different layout from PRB's other wallcharts. Afghanistan, Mali, and Sierra Leone have the highest child mortality with about 300 infant/child deaths per 1,000 births; Finland, Iceland, and Sweden have the lowest rate, about 8.

Also listed are percent of low-birthweight babies, infant mortality, percent surviving to age 5, education, immunization, literacy, access to safe water supply, and other data.

Children of the World is also available in French and Spanish editions. For information on ordering copies, contact either PRB, 777 14th St. N.W., Washington, D.C. 20005; or UNICEF, Division of Information and Public Affairs, 866 United Nations Plaza, New York, NY 10017. *– CH*

A Guide to Indexing and Abstracting Services

An index represents an analysis, usually by name and subject, of a document. Abstracting services perform the same function in locating and recording the contents of periodicals, books, and various types of documents, but also include a summary of the material indexed.

Two major indexing and abstracting services for demographic and population-related research are: **Population Index**, a book/manual index, and **POPLINE**, an online computer index or bibliographic database.

Population Index, edited by Richard Hankinson, is published quarterly – with annual cumulations – for the Population Association of America by Princeton University's Office of Population Research. It was begun in 1933 as *Population Literature* under the coeditorship of Frank Lorimer and Irene Taeuber. As it was then, it remains a major reference tool and vehicle for bibliographic research and the dissemination of noteworthy items within the field of demography.

The bibliographic citations within *Population Index* are arranged alphabetically by first author under the appropriate subject heading, e.g., fertility, migration, regional population studies. Each citation provides author, title, publishing information, a content and scope abstract, and – where possible – at least one location where a copy of the item can be found. *Population Index* also occasionally publishes review articles designed to present a general review of the literature on a specific topic of demographic interest. Professional meetings and conferences, new periodicals, official statistical publications, machine-readable data files, and author and geographical indexes round out the contents.

Established as POPINFORM in 1973, POPLINE (POPulation information onLINE) is a comprehensive, internationally accessible computerized database that provides bibliographic citations, with abstracts, on population and family planning literature worldwide. It is maintained by the Population Information Program (PIP) of the Johns Hopkins University, the Center for Population and Family Health Library/Information Program (CPFH) of Columbia University, *Population Index*, and the Carolina Population Center (CPC) of the University of North Carolina at Chapel Hill (CPC began contributing to POPLINE in 1985, loading citations back to 1980. Pre-1980 CPC online citations are available through DIALOG's Population Bibliography.) The database is available through the MEDLARS system at the National Library of Medicine and is funded primarily through the U.S. Agency for International Development (AID) and also by the National Institute of Child Health and Human Development (NICHD).

Complete citations, with or without abstracts, and location information are available for a wide variety of materials, including some unpublished literature. The database contains over 125,000 records on research in various population-related fields, including human fertility, community-based services, demography, censuses, vital statistics, and related health, law, and policy issues. The file is updated monthly, adding approximately 12,000 entries annually.

A key concern in the use of both of these sources is document retrieval. One month's time should be allowed to obtain hard copies. Retrieval can be accomplished either by directly tracking the material through the location source(s) noted or via inter-library loan. Certain restrictions on document size and photocopying/handling charges are often applicable.

Whether a researcher should use a manual or online index depends upon several factors. The most obvious is availability, though time constraints and the anticipated user needs play important roles.

Generally speaking, when a broad, undifferentiated search requiring a few citations or the work of one author is needed, a manual index is an excellent source. On the other hand, an online index is extremely efficient when a specific topic and an exhaustive literature search are required, though a fee is usually attached. *– D.M.*

DEMOGRAPHER'S PAGE

Some Observations on Training Applied Demographers

by Gordon F. De Jong

As little as 10 years ago, addressing the issue of training applied demographers would have been improbable, except in selected developing countries. Now there are over 60 demographic services and consulting firms in the U.S., according to *American Demographics* magazine. In addition, some corporations and businesses employ demographers in their marketing and strategic planning units, and all states as well as many metropolitan and country governments include demographic analysis as part of their activities.

How should we train demographers for applied public and business sector positions? This paper addresses some of the issues implied in this question and draws upon the experience of the population training program at Pennsylvania State University.

Disciplinary Paradigms

An important issue relevant to the training of applied demographers is how demography is viewed as a discipline. There are two basic views:

1. That demography is a distinct discipline with several unique paradigms, or models, (i.e., demographic transition theory, stable population theory, etc.) which underlie the explanatory theories, hypotheses, methodologies, and statistical techniques that guide the discipline; and
2. That population questions are inherently parts of other social and biological science disciplines, and that basic and applied questions in demography are best approached by integrating demographic theories, methodologies, data, and statistical techniques into the paradigms and frameworks of these other disciplines.

The former approach emphasizes a curriculum that focuses on demographic topics: fertility, mortality, migration, population composition, demographic data, demographic models, the demography of specific sub-areas, etc. The latter approach emphasizes a curriculum with courses that seek to integrate population structure and dynamics with the theories, frameworks, methodologies, and problems of other social and biological science disciplines.

How should we train demographers for applied public and business sector positions?

At Penn State, we follow this latter approach to demographic training. For example, the entry-level graduate courses are entitled social demography, economic demography, and population geography. While these courses clearly involve some overlap in topics covered (migration, for example), the way the questions are formulated, the theories and frameworks used to address these questions, and the methodologies proposed to arrive at answers to basic and applied problems are clearly not the same. Students are introduced to competing explanations, not only of the causes but also consequences of population structure and change.

The core population seminars that build upon these entry-level graduate courses also reflect a multidisciplinary perspective: i.e., family demography, fertility and development, ecology and small town population change, population geography problems, economic development in the U.S. and developing countries, and population theory and policy. Certainly problems of applied demography are not the major focus of these courses. However, the diversity in explanatory systems and methodologies that this view of demography provides is an appropriate perspective from which to address such applied demographic issues as local area economic development, human service needs, the changing labor force, minority population equity questions, resource allocation, and similar problems.

Specialized Demographic Methods

A thorough knowledge of demographic materials and the specialized demographic techniques to work with macro (aggregate or area) as well as micro (individual) data files is critical in training applied demographers. Like many training programs we offer three specialized demographic methods courses:

1. A survey course of basic demographic data and techniques, including estimates and projection methods;
2. A data systems course on how to manage census files and display results in computer graphics;
3. An applied mathematical demography course which addresses the mathematical and statistical bases for many of the advanced techniques involving stable population theory, rate structures, projections, and similar problems. We see these courses as relevant to the training of academic as well as applied demographers.

Specialized *demographic* techniques alone, however, may not constitute excellence in applied demographic training. Many of the population-related economic development, human service, marketing, and program allocation questions as well as some population estimates and projection models involve regression and/or log linear analyses. These techniques need to be available to applied demography students through a course sequence in either social statistics or econometrics. For advanced graduate students, a minor in applied statistics may be desirable, including specialized courses in sampling theory, time series analysis, advanced regression methods, etc. Our experience also suggests that some tasks in applied demography require spatial modeling or program evaluation methods, and we offer courses in both of these areas as options in the demography program.

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and Director of the Population Issues
Research Center, the Pennsylvania
State University

We conclude that specialized demographic methods courses provide necessary but not sufficient skills for well-trained applied demographers. Indeed, methods and techniques in the absence of substantive knowledge do not provide the breadth in demographic perspective that is so important for applied demographers, especially business demographers who frequently deal with strategic planning problems.

Research and Practicum Opportunities

The applied demography research and practice opportunities of students depend in part on the research program of the faculty in the population training program. Some population research centers, including Penn State, have formal or informal relationships with a State Data Center. This relationship can provide unique opportunities for student experiences in such activities as responding to client data requests, producing population estimates and projections, or preparing descriptive briefing reports and demographic profiles which are part of the stock and trade of public sector demographers.

The basic issue, however, may be the opportunity to experience the application of the *demographic perspective* to research and policy questions. We start this emphasis with a sophomore-level population analysis project. Usually this is the first opportunity students have for hands-on experience with demographic trend analysis and data manipulation. This course is very popular at Penn State, with an annual enrollment of approximately 300 students from many social science and planning-related majors.

Examples of key factors in supportive research and practical experiences (particularly of graduate students) include: the way faculty members address demographic research questions, whether applied problems are investigated, the institutional ethos toward involving students in research programs, the encouragement for thesis experience with applied issues, and the amount of funded research. Developed-country students can find much to learn from the demographic program and policy applications and evaluations in some developing countries, which are, in many cases, state-of-the-art. Thus, an emphasis in a population center on international population research may provide a positive atmosphere for raising questions about policy causes and consequences of population dynamics. For example, a comparative developing-country study of the impact of electrification on fertility decline helps students critically evaluate the logic of the interrelationships between socioeconomic development and demographic change. U.S. students sometimes shed some of their applied demographic naivete through studying selected developing-country demographic literature and interacting with their developing-country classmates on applied-demography policy issues.

> One factor is faculty attitude toward students' varying employment goals

Because of the considerable diversity in the task assignments of business and public sector demographers, we would argue that relevant research and practicum experiences can be garnered in a variety of settings and institutional arrangements, and are not limited to experiences in the preparation of population estimates and projections.

Attitude and Faculty

Another factor influencing the training of applied demographers is the attitude of the faculty concerning knowledge application and the legitimacy of public and private sector employment goals of students in training programs. Students quickly get the message of how faculty perceive the ranking of academic relative to nonacademic employment opportunities. Behind these perceptions may lie different views of demography as a field of study: for example, the view of demographic knowledge for knowledge's sake, the view that demographic knowledge and techniques may have applications to practical problems, or the view that demographic knowledge and techniques are justified primarily if not exclusively in terms of their application potential.

In part these views reflect the diverse traditions (i.e., land grant university, private university, liberal arts college) in American higher education. A successful applied demography program probably needs a balance of these views with some faculty who can articulate linkages between demography as a science and applied sector problems.

Conclusions

In this essay many dimensions of the training of applied demographers have been discussed. I have emphasized (a) the relevance of the training-program paradigm of demography, (b) the availability of a wide range of specialized methods and skills courses, (c) the opportunities for a variety of applied and policy-relevant research and practicum experiences, and (d) the importance of the attitude of the faculty toward public and private sector employment goals of students.

Largely absent from the above list of applied demographic training issues are experiences in the application of demographic materials and perspective to the *process* of corporate strategic planning or to public sector policy decision making and evaluation.

For example, the documentation of the decline in the teenage population and the projection of this age group for state and local areas is a well accepted dimension in the training of applied demographers. Seldom, however, do demographic research or training programs provide experiences in, or training concerning the ways demographic data and trends are actually used by policymakers to make decisions on resource allocations, program initiation, personnel needs, site

Continued on page 8

Demographers Page

Continued from preceding page

location decisions, or the evaluation of program effectiveness.

Is an excellent training program for applied demographers inherently different than that for other academic demographers? Given the current development of applied demography, I am not sure that the answer is yes. The future, however, may see more specialization, with a closer integration of applied demographic training with quantitative policy analysis and with marketing curricula rather than with more and more emphasis on specialized demographic substantive and techniques courses.

POSSLQ Rise Slows

While the number of unmarried-couple households had been growing rapidly during the 1970s, growth in that type of living arrangement tapered off in the early 1980s. From 1984 to 1985, the Census Bureau's Current Population Survey reported no increase, with the number of such households just below 2 million. Advance data for 1986, however, indicate a resumption in growth, but the annual rate of increase in the 1980s, 5.6 percent, was about half that of the 1970s.

According to the Census Bureau's *Marital Status and Living Arrangements: March 1986 (Advance Report)*, in 1985, there were 2.2 million households containing POSSLQs (Persons of Opposite Sex Sharing Living Quarters) in 1986, five times the number in 1960. Compared to such households in the past, today's unmarried-couple households are younger and more likely to be childless. In 1985, 79 percent of the partners were below age 45 and 70 percent had no children. In 1960, the comparable figures were 33 and 55 percent, respectively. Unmarried couples accounted for about 4 percent of all couples in 1986.

Keep in mind that the definition of unmarried-couple household does not necessarily imply a close personal relationship, but includes any number of possibilities, such as an elderly woman with a male student boarder. *–C.H.*

Beverly

Continued from page 3

1997 when immigration was outlawed.

2035 – Outer space now has a population of 1,018 based on a projection from an interstellar census conducted in the late 1970s by the Hudson Institute (now of Covina, Calif.).

2036 – Roy returns from Ohio a beaten man. B. agrees to reinstate their HFC at the point of termination.

2037 – B., now 50 years old, "bears" second child in vitro, thanks to an ovum frozen earlier. No longer are women limited by menopause. Jason, meanwhile, is now 17 years old.

2038 – Despite this new birth, R. and B. are taking care of more parents (four) than children (two). A national trend toward self-sufficiency and government frugality have helped to bring extended families together.

2039 – R. and B. retire. Their $375,000 pension enables them to retire to a modest home in Reagan City, Fla.

2040 – U.S. becomes the world's largest kelp exporter, but relies heavily upon controversial sales to the People's Republic of England.

2041 – B.'s first child, Jason, graduates from college with the class of '41.

2042 – Jason now works as an Interocitor repairperson. Interocitors began supplanting TOs in the late 2030s.

2045 – Because no one listened to demographers, Social Security, the national annuity chain letter, has metamorphosed into the presentation of an honorary gold pocket watch sent from Social Security headquarters in Phoenix to all workers who have accumulated at least 250 work points.

2050 – The buildup of CO_2 in the atmosphere has led to a "greenhouse" heating of the global climate. This means, among other things, a 3° F rise in temperature, the arrival of a semi-permanent drought in the U.S. Midwest, and a rise in the sea level of 3 to 6 feet that drowns or threatens coastline cities, including New York and New Orleans. This gives new meaning to the term "oceanfront property."

2051 – Demographers finally are given the respect they deserve. Demographic consultants open offices in every neighborhood and are consulted like doctors, lawyers, and soothsayers.

2060 – The world now has a population of 7,000,000,000 (birth control caught on a lot more quickly in developing countries than anyone expected). Poverty and unemployment are low, as most people now are employed by international bureaucracies.

2065 – B. has now reached the life expectancy of 78 years prophesied for her in 1987. As a demographic consultant comfortingly tells her, "You're on your own, now." She has 0 living parents and parents-in-law, two children, three grandchildren, and three great-grandchildren. Hallmark does a booming business on Great Grandparents Day.

2076 – Outer space now has a population of 11,000, according to the Hudson Institute's "moderate" projection.

2086 – B. expires while jogging on a sunny Saturday afternoon, a shock to many who remarked on her apparent good health and mourn, "She was so young."

2101 – B.'s first child is now 80 years old and her second child, who retired to a dome colony on the planet Mars, is 63 – two citizens of the 22nd century, who, thanks to their mother's nursery tales, know all about Perry Como. *–A.H., C.H.*

Call for PRB Fellows

PRB is looking for applicants to a fellows program for graduate students in population studies and other fields relevant to population programs in developing countries. Applicants must be developing country nationals.

Participants in the fellows program will present brief papers at a one-day Population Policy Seminar at the annual meeting of the Population Association of America in Chicago on April 29, 1987. In addition, in July 1987, fellows will attend a two-week workshop at PRB in Washington, DC.

Actual travel costs will be provided, along with a per diem and small stipend.

Interested candidates should write to Wendy Patriquin at PRB, 777 14th St. NW, Suite 800, Washington, DC., 20005, describing their interests, qualifications, and reasons for applying to this program. A curriculum vitae, brief description of current research and plan for explaining its policy impact, and letters of recommendation from professors are also requested. Deadline for application is Feb. 13, 1987.

The Demographic Dichotomy

The dichotomy presented by the rapidly growing countries of the developing world and the slow or nonexistent growth of the more developed countries is examined in the latest Worldwatch Paper *Our Demographically Divided World*, by Lester R. Brown and Jodi Jacobson, published by the Worldwatch Institute.

The report, sponsored by the UN Fund for Population Activities, divides the world into two parts. The slow-growth portion includes North America, Western and Eastern Europe, (including the USSR) and East Asia (including China). All together, this portion contains 2.3 billion people, just under half the world total, and has a population growth rate of 0.8 percent per year.

The rapidly growing segment contains the balance: Africa, the Middle East, the Indian subcontinent, Southeast Asia, and Latin America, and houses 2.6 billion people. Growing at 2.5 percent per year, it adds 64 million people annually, compared with 19 million in the slow-growth part.

"The demographic middle ground has largely disappeared," report the authors. "Where population growth is slowing, rising living standards and falling fertility are reinforcing each other. Unfortunately, rapid population growth and environmental deterioration also feed upon each other, eventually leading to a downward spiral in living standards."

Rapidly growing countries, the report observes, will have to make a choice between a vigorous family planning program or declining living standards. "In just over half the world, time is running out in the effort to slow population growth by reducing birth rates," Brown and Jacobson conclude.

—J.A.

Copies of *Our Demographically Divided World*, by Lester R. Brown and Jodi Jacobson, are available from the Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036. Single copies are $4.00 each, 2-5 copies, $3.00 each, 6-20 copies, $2.00 each, 21 or more copies, $1.00 each.

SOFTWHERE

The purpose of **BIFs** (Basics in Forecasting: Population and Economic Models) is to introduce students to the basics of economic and population forecasting. By working through several different models, students learn the strengths and weaknesses of forecasting and are introduced to concepts of computer modeling.

Students construct models to forecast population and economic models for states using the data provided in the package. BIFs contains two population models – simple population growth and cohort-component population – as well as five economic models. The package also features the option of comparing the results of two models. Results of the forecasts are reported as tables and graphs.

The package includes a User's Guide and software on two diskettes (one copy-protected original and one backup). The User's guide contains exercises to be completed in conjunction with running the computer models. State Data and instructions for completing forecasts for cities and counties are also included in the guide. The package requires an IBM PC and 192K memory. For more information write: CONDUIT, The University of Iowa, Oakdale Campus, Iowa City, Ia. 52242

—K.C.

POPULATION UPDATE

Estimated United States Population:

As of August 1, 1986	241,677,000
As of August 1, 1985	239,494,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 994

Estimated World Population:

As of January 1987	4,984,000,000
Annual growth	83,000,000

Estimated by extrapolation of the mid-1986 population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: August 1986

	12 months ending with August					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,714,000	3,750,000	15.5	15.8	15.5	15.8
Deaths	2,095,000	2,080,000	8.7	8.8	8.6	8.6
Natural increase	1,619,000	1,670,000	6.8	7.0	6.9	7.2
Marriages	2,391,000	2,446,000	10.0	10.3	10.4	10.6
Divorces	1,181,000	1,183,000	4.9	5.0	4.9	5.1
Infant deaths	39,300	39,500	10.6	10.6	10.7	11.0
Population base (in millions)			240.2	237.6	235.2	233.0

Note: Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source: *Monthly Vital Statistics Report* (Vol. 35, No. 8) from the National Center for Health Statistics.

Glamorous Population Field Beckons

Careers in the population field hold "a rich and exciting intellectual challenge," says the Population Association of America.

For anyone considering a population career, the PAA has just published a wide-ranging new guide, "Careers in Population." What population careers? The field features such job titles as demographer, population specialist, and professor, not to mention writer/researcher.

Universities and colleges employ half the U.S.'s population specialists, the PAA estimates. Other employers: the Census Bureau and a host of federal agencies, where population specialists analyze statistics and supervise international population assistance. States also monitor population change, and a number of state governments maintain an office of state demographer.

Some 50 private organizations in the population field also employ their share of demographers. The biggest "growth industry," however, is currently the private sector, which is making use of demographic data and analysis as planning tools in the marketplace.

While population is not as populous a field as say, economics, the positions are out there. The PAA, the national professional society of population specialists, has a membership of about 2,600.

The PAA guide includes a list of some 29 universities in the U.S. and Canada which have centers or programs where advanced demographic training is available. (Most offer M.A.s or PhDs in related social science fields, with a specialization in demography.) For many applied careers, an M.A. is necessary; for more academically concentrated areas, a PhD may be needed.

For the interested demographic student, the PAA says, the field offers "an abundant variety of career opportunities offering competitive professional income levels and ample room to grow."

For a copy of the 16-page pamphlet "Careers in Population" contact: the Population Association of America, Inc., P.O. Box 14182, Benjamin Franklin Station, Washington, D.C. 20044. *—A.H.*

TAKE A NUMBER

Census's Hispanic Projections: The Census Bureau has begun regularly issuing projections of the Hispanic (or "Spanish origin") population in the United States with a detailed report in its *Current Population Reports* series (P-25, No. 995). Hispanics will be included in future national projections issued by the Bureau.

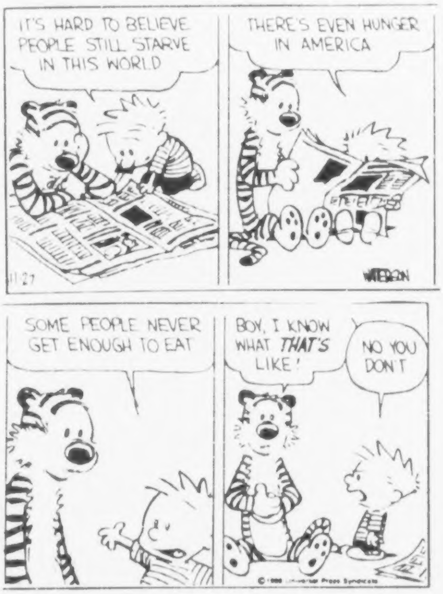
The new series provides a broad range of choices, based upon the assumptions about future birth and death rates and, of course, immigration one selects. The projections have been run to 2080 and project a Hispanic population growing from about 16 million in 1982 to anywhere from 35 to 141 million by 2080. Given this wide range, a close look at the assumptions will be an interesting, if not essential, exercise for most users of the data.

Hispanic fertility was assumed to follow the same path as that for the national projections, i.e., an "ultimate" total fertility rate of 1.9 children per woman in the "middle" series, 1.6 in the low series, and 2.3 under the high assumption. But since Hispanic fertility starts from a higher level, 2.7 lifetime births per woman, it does not reach the replacement level of 2.1 births per woman until about 2040 (under the medium assumption). For mortality, Hispanic life expectancy was assumed to converge with that of the white, non-Hispanic population in the long run.

When dealing with the U.S. Hispanic population, the assumptions on immigration are most likely to cause discussion and perhaps even some controversy, given the wide range of figures used for illegal immigration. The Bureau's low series assumes 86,000 annual Hispanic immigrants, the middle series, 143,000, and the high, 362,000. Only the high assumption includes an estimate for illegals, 212,000 per year, but it also makes a deduction of 31,000 for emigration. The difference caused by these assumptions is striking. The middle-series Hispanic population projected for 2050 is 51 million, but when the middle-series fertility and mortality assumptions are held constant and high immigration used, the 2050 population would be 78 million. *—C.H.*

ADDENDA

Calvin & Hobbes


IT'S HARD TO BELIEVE PEOPLE STILL STARVE IN THIS WORLD
THERE'S EVEN HUNGER IN AMERICA
11-27
WATERSON
SOME PEOPLE NEVER GET ENOUGH TO EAT
BOY, I KNOW WHAT *THAT'S* LIKE!
NO YOU DON'T

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CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

THE NEW AMERICAN GRANDPARENT: A Place in the Family, A Life Apart, by Andrew J. Cherlin and Frank F. Furstenberg, Jr. New York: Basic Books, 1986. 278 pages. $17.95. ISBN 0-465-04993-1.

With this book, family sociologists Cherlin and Furstenberg bring American grandparents out of the shadows and into the limelight. The authors note that up until the mid- to late-1970s research on American grandparents was "peculiarly marginal." Researchers typically regarded grandparents as isolated, cut off from kin, and something of a social problem. But while the nuclear family has been receding in importance with the increase in divorce and remarriage in the 1960s and 1970s, in certain ways the extended family has been making a comeback; lately grandparents have been rediscovered as "family watchdogs," sought after in their roles of "sources of support in reserve"– when, for example, parents break up and children are buffeted by tension and change.

What then is new about the American grandparent? In terms of both what is actually happening and what older people seem to want, more and more grandparents are experiencing "intimacy at a distance"– living in a separate household with independent lives of their own, but keeping in close touch with their families to share companionship and support.

This book is much more than a study of grandparents. The authors have used insights they obtained on the attitudes and behavior of grandparents to write a thoroughly readable and informative book about changes in the contemporary American family.

– Alice T. Day
Senior Research Associate
The Urban Institute

MARGARET SANGER AND THE BIRTH CONTROL MOVEMENT: A Bibliography, 1911-1984, by Gloria Moore and Ronald Moore. Metuchen, N.J.: Scarecrow Press, 1986. 230 pages. $18.50. ISBN 0-8108-1903-1.

This volume presents a retrospective, annotated bibliography for those wishing to review the life and works of Margaret Sanger (1879-1966), a pioneer in the American birth control movement. The authors have assembled thousands of citations, arranged in chronological order from 1911 to 1966. In addition, the bibliography contains citations on Sanger obituaries, major biographies with reviews, and citations covering the period 1967 to 1984. Titles of materials written by Sanger, major bills favoring birth control, pro-birth control hearings held in the United States, and author and subject indexes are also included.

The locations of special collections housing materials either on Sanger or on birth control are provided with an OCLC (Online Computer Library Center) number added to aid in interlibrary loans. Though geared toward an audience of college and research scholars, efforts were made to include materials for high school students as well. This volume is an excellent historical resource on the American birth control movement, particularly in light of increased public attention to school-based birth control clinics and sex education within public school systems.

– Denise Molajo

WOMEN IN THE WORLD: An International Atlas, by Joni Seager and Ann Olson. New York: Touchstone Books, 1986. 128 pages. $12.95 (paper). ISBN 0-671-63070-9.

This atlas presents a plethora of colorful maps displaying a wide variety of indicators of women's status. Clearly feminist in perspective, many of the book's maps and charts reflect a primary concern of women: reproductive health and freedom. In addition, this atlas maps other social, economic, and political indicators, including prostitution, rape, and beauty contests across the world.

While the maps are imaginative, they tend to be overwhelmingly busy. The designer of the maps and charts outdid herself in finding cute symbols to represent the various indicators (for instance, different size pencils to represent school enrollment for girls). Sometimes this works, but often it is simply distracting.

Though elaborate graphics were obviously a priority in the production of this atlas, its strength lies in the data it presents, not in the presentation itself. Well researched and exhaustive in its attention to the diversity of factors affecting women worldwide, this book should prove to be a valuable resource. It is unfortunate that the reader has to work so hard deciphering the maps and charts in order to reach the data.

– Janine Adams

Books Received

AGE STRUCTURE OF MORTALITY IN DEVELOPING COUNTRIES: A Data Base for Cross-Sectional and Time Series Research (ST/ESA/SER.R/66), by Dept. of International Economic and Social Affairs. New York: United Nations, 1986. 267 pages.

AN INTRODUCTION TO POPULATION, by Kenneth C. W. Kammeyer and Helen L. Ginn. Chicago: Dorsey Press, 1986. 336 pages.

GLOBAL HUNGER: A Look at the Problem and Potential Solutions, edited by Malcolm H. Forbes and Lois J. Merrill. Evansville, Ind.: University of Evansville Press, 1986. 164 pages. $9.95.

HEALTH CONDITIONS IN THE AMERICAS, 1981-1984 (Scientific Publication No. 500), by Pan American Health Organization. Washington, DC: PAHO/WHO, 1986. Vol. I: 416 pages, $8.00; Vol. II: 250 pages, $8.00.

PERIODIC ABSTINENCE IN DEVELOPING COUNTRIES: Update and Policy Options, prepared by Family Health International for Demographic Data for Development, Institute for Resource Development at Westinghouse. NC: Family Health International, June 1986. 94 pages.

SOUTH AMERICA ECONOMIC HANDBOOK, (First edition) by Euromonitor. London: Euromonitor (distributed by Gale Research, Detroit), 274 pages. $80.00.

SPOTLIGHT

MADAGASCAR

Population (mid-1986 est.): 10.3 million
Land area: 225,656 sq. miles
Births per 1,000 pop.: 45
Deaths per 1,000 pop.: 17
Rate of natural increase: 2.8 percent
Total fertility rate: 6.1
Infant mortality rate: 67 infant deaths per 1,000 live births
Life expectancy at birth: 50 years
GNP per capita (1983 est.): US$310
Capital: Antananarivo

by Janine Adams

Located some 250 miles from the Southeast coast of Africa – and still floating east – the Democratic Republic of Madagascar consists of the fourth largest island in the world, along with several much smaller islands. While the climate is moderate in the center part of the main island, it is tropical around the coast.

Almost every native plant and form of wildlife in Madagascar is found nowhere else. The flora and fauna of Madagascar are so unique that the nation has been called "the single highest conservation priority in the world." Most celebrated are its 40 kinds of lemurs, nocturnal creatures related to the monkey, which dwell in Madagascar alone. Scientists hold great hope for the lessons to be learned from the study of these creatures.

Given its proximity to Africa, the indigenous population of Madagascar could be expected to be of African descent. In fact, research suggests that the island was unpopulated before the beginning of the Christian era, when Indonesian seafarers first landed in eastern Africa, dropping by for African wives and slaves, and then settled in Madagascar. The result is a melting-pot mixture of Africans and Asians.

Malagasy, the official language of Madagascar, is of Malayo-Polynesian origin and is the sole indigenous language of the island. In addition, the colonial history Madagascar shares with France has resulted in widespread knowledge of French among the more educated segments of the population.

Like many less developed countries, Madagascar is experiencing high fertility and relatively high (but declining) mortality. Immigration and emigration are not significant demographic factors for Madagascar. The relatively high growth rate is of little concern to the government in the long run. Rapid growth is seen as good for future economic expansion and utilization of the country's yet unexploited natural resources, such as its mineral deposits of chromite, bauxite, and graphite. In the short run, however, the government sees rapid population growth as unfavorable to employment and income distribution.

No direct intervention, either pro- or antinatalist, has been taken, though the overall socioeconomic development strategy gives priority to combatting poverty, unemployment, and the uneven distribution of income. The health policy pays special attention to children and pregnant women; among the government's goals is the reduction of the infant mortality rate. The government recognizes the rights of individuals and couples to have access to information on contraception and to determine the number of their children.

Some 78 percent of the population lives in the rural sector. Indeed, the majority of the population exist on subsistence agriculture. Though an agricultural exporter, much of the nation's agricultural production goes toward feeding its people. Once an exporter of rice, in 1972 the nation began to import rice to meet its needs. Agricultural products do make up a large proportion of Madagascar's exports, however. Madagascar is the world's leading supplier of cloves and vanilla, making it an indispensable (if generally unrecognized) supplier to bakers worldwide.

VOKOVOKO
KENA
TSIMIALONJ

UNICEF

Public health clinic in Antananarivo

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POPULATION TODAY

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A glimpse of how Romania governs population. See page 3.

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FROM THE EDITOR'S DESK

The old people are coming! The old people are coming! You're heard that threat before, especially from those who have peered into U.S. population projections and seen that by the year 2030 those 65 and over will make up 21 percent of the national population.

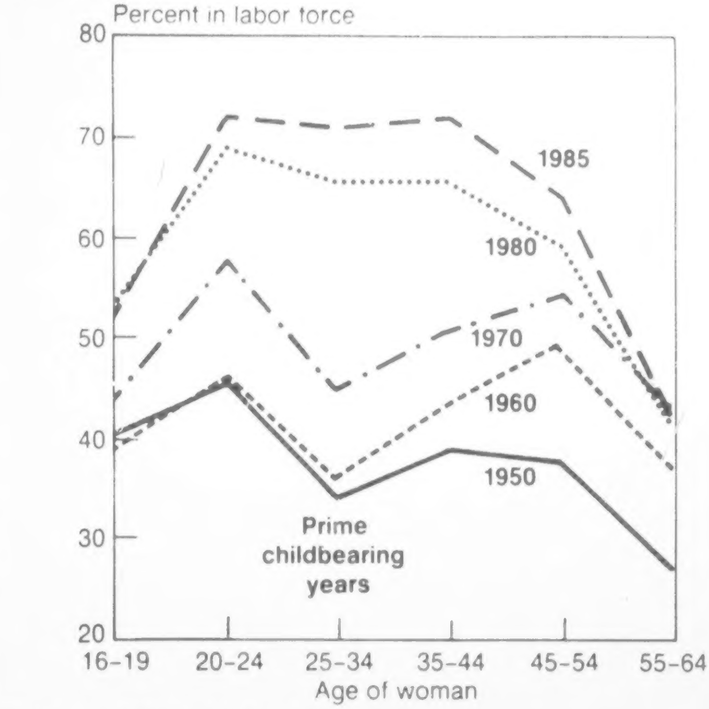
According to business experts, that demographic watershed will mean a epochal change in the marketplace: an imminent mature consumer world of low-maintenance condos, pharmaceuticals, solid portfolios, and deluxe recliner chairs. Make your investments in these areas early, goes this line of thinking, and cash in on the inexorable aging of America.

But we wonder (after a visit, credit card in hand, to our favorite local shopping mall). The frivolousness of the goods has remained unchanged. Only the customers have changed; they've aged. So not only are these would-be members of "The Big Chill" generation healthier, more athletic, taking better care of themselves (etc., etc.) than the previous semi-oldsters, they're more likely to buy wind-up Godzilla dolls. For themselves. Sans embarrassment. So the hot markets of the 21st century may not be in prudent consumables, but in frivolities to end all frivolities. You watch.

— Art Haupt

SPEAKING GRAPHICALLY

Labor Force Participation for U.S. Women by Age: 1950-1985



Source: Bureau of Labor Statistics

POPULATION TODAY

VOL. 15, NO. 2 February 1987

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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*Educators and students should send supporting documentation.

How Romania Tries to Govern Fertility

> The fetus is the socialist property of the whole society. Giving birth is a patriotic duty, determining the fate of our country. Those who refuse to have children are deserters, escaping the laws of national continuity.
>
> *Nicolae Ceausescu*
> *President of Romania*
> *October 1986 (quoted in Der Spiegel)*

In 1966, alarmed by a national birth rate of 14 births per 1,000 population, Romania's Communist government abruptly ended legal access to abortion and announced a national goal to raise the birth rate and increase its national population by 30 percent to 24-25 million by 1990.

Reports of coercion to encourage births have been coming out of Romania ever since. But now, two decades later, the government of Nicolae Ceausescu is unswerving in pursuit of higher fertility. Contraceptives are banned, neither manufactured nor imported, and employed women up to age 45 are required to undergo monthly gynecological examination at their workplaces. The lame official explanation for the latter program is that it serves as a health checkup. But this monthly exam is clearly concerned with finding pregnancy and when found, monitoring the pregnancy to term.

From 1.9 to 3.6 and Back

Abortion specialist Henry David reports in the latest issue of *Abortion Research Notes*, published by the Transnational Family Research Institute, that women's participation in the program is required in order for them to receive other medical care. Further, unmarried persons over 25 and childless married couples without a valid medical reason for infertility are assessed a special 30-percent tax on income. (Legal abortion is reserved principally for medical emergencies; the minimum age for abortion on request for women with fewer than four children has now been raised from age 40 to age 45.)

In a recent national demographic survey, married women were asked about their weekly frequency of sexual relations. The next question was: "Why have you not conceived?"

Despite the intensive efforts related above, the success of Romania's pronatalism drive has been distinctly mixed. In the years before the 1966 abortion ban, the country had a total fertility rate (TFR) of about 1.9 births per woman, which was below replacement level. Two years after the abortion decree, fertility had shot up to 3.6, but since that peak the rate has been on a gradual downslide year by year. As of 1983 the TFR had dropped to about 2.0.

Romania's strict abortion ban has achieved only mixed success.

While overt political protest is not a part of Romanian life, David reports unofficial estimates suggesting that despite the government's policy, about 40 percent of the approximately 700,000 Romanian women pregnant in 1985 had illegal abortions. To combat this, a special unit has been established within the State Security Police.

'Why have you not conceived?' the government survey asked women

Oddly, for a country so determined to increase its population, Romania's reinforcements for promoting pronatalism remain principally negative: restrictions on abortion and contraceptive distribution, and the organizational mechanisms for enforcing these. Positive inducements used in other European countries, such as birth lump-sum payments, maternity leave, and family income supplements are relatively meager, presumably because of national financial austerity.

Romania's determination to boost its population size can be seen in the context of external security concerns. Its 23 million population is about the size of Yugoslavia's. Next to Poland (38 million), these two countries are the most populous in Eastern Europe, but compared to the USSR they seem compact-sized. Though both have Communist governments, they hew to independent foreign-policy courses. It's possible that Romania, while a titular member of the Warsaw Pact, encourages population increase as a form of self-protection.

In addition, recent years have been disappointing for the Romanian economy. To save fuel and stretch national assets, the government has resorted to such draconian measures as winter-long electricity brownouts. As other Communist countries have in the past, Romania may see population growth as a way of alleviating labor shortages and thus increasing economic output.

The government's tough approach regarding matters of life and death is exemplified by a report (in a recent *New York Review of Books* article) that in Romania, ambulance rescue squads responding to an emergency ask the caller for the age of the afflicted person before they start out. If the patient's age is advanced, the arrival of medical assistance is retarded. It has also been reported that parents are not permitted to register the birth of a child until the child is one month old; this unusual procedure does not seem to have any utility other than to lower infant mor-

Continued on next page

Romania

Continued from preceding page

tality statistics (Romania's current rate is reported to be 24 infant deaths per 1,000 live births)

Governing Fertility

Considering the severity of other measures – the enforced registration of typewriters, for example – the way Romania implements its anti-abortion policy may just be another example of its governmental style, not a national anti-abortion crusade. Nevertheless, spokespersons have insisted on the sincerity of the government's desire to increase population growth, and argue that their progress in this area has been greater than that of other European countries.

Countries everywhere vary greatly in their fertility policies. Among Communist nations, for example, the USSR encourages higher fertility but probably has the world's highest legal national abortion rate (over one abortion for every birth). China's strong stand on birth control and abortion is well documented. But in all the world, Romania may be the country where fertility is most regulated – or perhaps one should say, enforced. – *A.H.*

Euro Conference Coming in June

A European Population Conference: Issues and Prospects takes place June 11-16, 1987, in Jyvaskyla, Finland.

The conference's seven plenary meetings and 25 sessions will focus on a wide range of topics concerning the population of Europe. It is sponsored by the International Union for the Scientific Study of Population (IUSSP), the European Association for Population Studies (EAPS), and FINNCO, a Finnish consortium comprised of the Finnish Demographic Society, the Finnish Population and Family Welfare Federation, and the Central Statistical Office of Finland.

For further information, contact: Dr. Altti Majava, Chairman of the Organizing Committee, c/o FINNCO-Travel Experts, P.O. Box 722, SF-00101 Helsinki, Finland; or Bruno Remiche, Executive Secretary, IUSSP, 34 rue des Augustins, 4000 Liege, Belgium; or Nico van Nimwegen, Executive Secretary, EAPS, P.O. Box 11676, 2502 AR, The Hague, The Netherlands.

SURVEY REPORT

Puerto Rico

Puerto Rico may have the world's highest rates of sterilization, according to the 1982 Fertility and Family Planning Assessment.

The 3.3 million inhabitants of this Caribbean island, a commonwealth associated with the U.S., are primarily Spanish speaking, and a majority are Roman Catholic. Traditionally, these factors would discourage use of sterilization, yet a marked preference for this method, documented in a 1976 survey, has continued into the 1980s. In a 1982 survey, 41 percent of the married women had been sterilized to prevent pregnancies, and another 4.6 percent had husbands who had been sterilized. Even more surprising, a sizable proportion of young women – 39 percent of married women aged 25-29 – opted for this type of "permanent" birth control, according to the survey.

Overall contraceptive use in Puerto Rico is high. Sixty-nine percent of married women were using some form of birth control in 1982. This is almost identical to the rate for the U.S. married women in that year. However, female sterilization accounted for 58 percent of overall birth control use in Puerto Rico, compared to only 26 percent in the U.S.

And while only 5 percent of Puerto Rican couples rely on vasectomy, this is a higher level of male sterilization than in any Latin American country. Next to sterilization among married couples, the pill (8.3 percent), rhythm (5.2 percent), and the condom (4.4 percent) were the most common contraceptive methods in 1982.

While the survey data show high contraceptive use among women in all socioeconomic levels, sterilization is twice as prevalent among less educated women as among college-educated women. Conversely, reliance on male sterilization is greater among couples in which the wife has at least a high school education.

Widespread sterilization among younger women and women with only two or three children has had a major impact on the Puerto Rican birth rate, which declined from 33 to 20 from 1960 to 1986. An estimated 33 percent of the decline in marital fertility between 1977 and 1982 has been attributed to the level of sterilization.

Although the high rate of overall contraceptive use might imply that Puerto Rican women have adequate access to family planning methods, the heavy reliance on sterilization by younger women shows that they are better at limiting the number of births than spacing them. Twenty-seven percent of the sterilized women had never used any other method before their operation. This suggests that Puerto Rican women need better access to information about reliable reversible methods in order to plan their families more effectively. – *M.K.*

The Great American Juggling Act

One of the most vexing and common questions facing working mothers is: How to care for children while simultaneously working in the marketplace (short of being in two places at once).

Obtaining convenient, reliable child care is a challenge presently still far from solution for many women. But the need is there. Whereas in 1950 barely one out of every eight women with a child under age 6 was working, by 1985 this statistic had risen to one of every two women. Further, the lack of affordable child care is probably preventing many poorly educated and low-income mothers from working at all, when they are the women who need jobs the most.

In the new PRB Population Trends Paper, "Juggling Jobs and Babies: America's Child Care Challenge," Census Bureau demographer Martin O'Connell and Harvard economist David E. Bloom describe the current status of public and private policies designed to ease this burden.

Policies in the workplace could include:

- More flexible work schedules;
- More freedom to work at home;
- Job benefits which include payment for child care;
- Employer-sponsored on-site child care centers;
- More liberal maternity and paternity leave;
- Use of sick leave to care for children.

In addition, public policies can be and have been enacted in many jurisdictions, including:

- Tax credits for child care costs;
- Federally funded child care for some low-income parents;
- Regulation of the child care industry;
- Tax rulings increasing the flexibility of employee benefits plans.

While employers are beginning to initiate new workplace policies, as yet only a small fraction of U.S. women are benefiting from them. O'Connell and Bloom write that encouragement for employers may be forthcoming from federal, state, and local governments. In addition, with "family" a professed concern of politics and government, Congress is considering other legislation, e.g., liberalization of maternity and paternity leave benefits.

One fresh uncertainty is the Tax Reform Act of 1986, which increases the income deduction for a dependent child (to $1,900), but eliminates the deduction for married couples when both work. But the low-income and single mothers most in need of child care are unlikely to be affected by these tax provisions. And in any case, over the past two decades women have moved to become a major, permanent component of the U.S. labor force. This "feminized workforce" can be expected to demand some form of assistance for child care services as part of their employment.

Copies of "Juggling Jobs and Babies: America's Child Care Challenge," by Martin O'Connell and David E. Bloom are available for $3.00 per single copy; 2-10 copies, $2.30 each; 11-50 copies, $1.90 each; 51 or more, $1.50 each. Orders of $50 or less must be prepaid and include $1.00 for postage and handling. Send order and remittance to Population Reference Bureau, Inc., Circulation Dept., PO Box 96152, Washington, DC 20090-6152. Make checks payable to PRB.

COUNTDOWN TO 1990

The U.S. Census Bureau is about to conduct a door-to-door test census in 10 counties in North Dakota. This exercise, testing procedures planned for the 1990 decennial census, is slated to begin in late March 1987. It comes as the last in a series of tests that started in 1984, covering all types of geographic areas likely to be encountered during the U.S. Census Day, when some quarter-billion Americans will be counted.

The North Dakota exercise will test improved computer processing and data collection methods that are under development for 1990. These will be used to enumerate a very rural area and two Indian reservations.

The results of these counts will pave the way for dress rehearsal censuses to be held in 1988. As the sobriquet "dress rehearsal" implies, the 1988 enumerations will constitute a final run-through for the actual questions, equipment, and procedures finalized for Census Day 1990. The dress rehearsals are planned for St. Louis (urban), several counties in Missouri (semi-urban), and several counties in Washington (quite rural).

Meanwhile, at home in Suitland, Md., the Bureau is preparing to submit to Congress the areas of subject matter to be covered on the 1990 questionnaires. Subject matter must be submitted in April 1987 and be approved by the House and Senate committees that have oversight over the Bureau. In April 1988, the Bureau must submit the actual questions for approval.

Since Congressional approval of subject matter and questions began only in 1980, no one has a handle on how the approval procedure will proceed in an age when the decennial census is increasingly caught up in national political squabbles. Several of the suits filed to enjoin the Bureau to adjust its 1980 Census counts are still alive in the courts, although (thus far) no successful challenge has ever been mounted against the Bureau's policy of not altering its official totals to adjust for undercount.

Incidentally, FOSDIC (Film Optical Scanning Device for Input to Computers) will be back in 1990. The procedure has nothing to do with the fearless detective who appeared in "Li'l Abner," but everything to do with photographing the filled-in blips on people's census forms on a continuous roll of film, which is subsequently fed into computers. In 1980 there were three FOSDIC sites; in 1990 there will be 11 regional ones, for faster processing of census data from the field.

—A.H.

DEMOGRAPHER'S PAGE

What is Philadelphia?

by Carl Haub

How many times has the following scene been repeated?

A family is driving north to visit an aunt in Philadelphia, when a small voice pipes up from the rear seat, not for the first time, "Daddy, is this Philadelphia?". "No," replies Dad a bit wearily, "We're in Wilmington, we're still in Delaware."

A while later, the Jersey flatlands give way to increasing development and again the inevitable question is issued from the rear seat. This time Dad can at least say that these are the beginnings of the city's suburbs. And, at last, as the car comes down from a long bridge, Mom can finally announce, "Now, we're in Philadelphia!"

There is a reason for this apparently nondemographic anecdote. An inquiry frequently received by PRB's information staff is an apparently simple one. What is the largest city in the world? Or a request may come for a list of the 20 largest cities. Or, simpler still, someone may only ask for the population size of a single city, such as New York or Bombay. Can these seemingly straightforward questions be answered?

Well, not always.

In Greater New York

If all countries defined their cities and their jurisdictions in a uniform way, there would be little problem. When two cities happened to be located near one another, there might be some doubt about where to count some of the population in between, but, all in all, things would be relatively straightforward. But countries don't do that, and neither do states within the U.S. for that matter, so we have problems.

Much of the difficulty stems from the important distinction between the "city proper" and the "metropolitan area" (the city improper?) For example, how large is New York? The city itself, which consists of five counties, also called boroughs, has a population of over 7 million. But we know that New York's local social and economic influence extends far beyond its legal boundaries. This nebulous area is usually referred to as the "metropolitan area" or, in this case, Greater New York. We all agree that such an area exists, but do we agree upon just who lives there and who doesn't?

We do not. The statistical agencies of many countries expend a great deal of effort to devise definition criteria which will yield consistent results from place to place, be palatable politically, and not injure local pride. If, for example, everyone in City B thinks of everyone in its larger neighbor, City A, as "them," they may not relish the idea of being lumped together as the "City A – City B Metropolitan Area" by the National Bureau of Involuntary Classifications.

> If only cities and countries defined their jurisdictions uniformly . . .

In the United States, the Bureau of the Census groups cities and their suburban and exurban counties into metro areas. One of the criteria is commuting to work, an entirely logical way of doing things. And the Bureau works closely with local authorities to classify cities and populations in ways which meet with their approval.

But the vagaries of geography and local politics often get sticky. One day, the Census Bureau announced that San Francisco had passed Philadelphia in population.

Of course, the City by the Bay itself still looked considerably smaller than the City of Brotherly Love to any casual observer, including a San Francisco reporter who called PRB to find out what was going on.

Of CMSAs and PMSAs

We explained that the Bay Area's *metro area* had passed Philadelphia's, hence the Bureau's announcement. Then, the reporter, beginning to believe in all this, asked just what those metro areas comprised. Well, we went on, San Francisco's Metro Area takes in quite a few surrounding counties and the city of Oakland and stretches as far south as Santa Cruz County.

This definition seemed a bit broad to the reporter, especially the presence of Santa Cruz, and he began to forget the whole thing. It is interesting to note that the National Geographic's *North American Atlas* gives the correct (greater than Philadelphia) population for San Francisco's metro area, but the southern edge of its map of that area stops short of Santa Cruz. Yet San Francisco would not have "passed Philadelphia" without the inclusion of Santa Cruz County's population.

The reporter was particularly surprised to hear that Wilmington, Del., and Trenton, N.J., were part of Philadelphia's metro area. (Dad, then, was wrong when he thought he wasn't in Philadelphia.)

The Census Bureau has found it necessary to devise more complex definition systems, but perhaps only because society itself has grown more complex. Metro areas are a prime example of this. In the U.S., the largest metro areas are called Consolidated Metropolitan Statistical Areas (CMSAs), broken down into Primary Metropolitan Statistical Areas (PMSAs).[1] The PMSAs consist of the large city itself and adjacent smaller ones, such as New York City and Newark, N.J. Thus, the smaller city can have some identity of its own, despite its interdependence with its larger neighbor. But – when one asks about the population of "Philadelphia," is one thinking about Trenton?

It is not likely that we will ever see a sign saying "Welcome to the Philadel-

Carl Haub is the Director of Demographic
Analysis and Public Information at PRB

phia Primary Metropolitan Statistical Area." It is also doubtful that lyricists will ever describe San Francisco as "the CMSA by the sea."

On another occasion, the Bureau of Economic Analysis issued a press release saying that New York would be passed by Los Angeles by 2000. This did not strike many as odd, despite the fact that New York City is twice as large as L.A., and many stories appeared about L.A.'s impending demographic dominance. A little digging showed that Los Angeles' *PMSA* was projected to pass New York's. This is tantamount to allowing L.A. to count its many surrounding suburbs but only allowing New York to include the city plus its suburbs to the north.

On the other hand, it is true that the city of Los Angeles is a comparatively small part of its metro area, so perhaps the comparison is not so unfair. Not counting places such as Pasadena in L.A.'s population would be a bit like not counting Brooklyn in New York. But, on the *other* hand, shouldn't "New York" be allowed to count its suburbs on Long Island and New Jersey? Are we comparing Big Apples to big oranges? (A family was driving from Cucamonga to L.A., when . . . well, you get the idea.)

None of this is intended as carping at any system of classifying population as metro or nonmetro. Such schemes are essential for analyses, although they are often quite tricky to explain to those who do not use them every day. In many countries, the real culprit is really just the simple fact of population growth around the cities. Suburban "rings" become major employment centers themselves as the "city" relentlessly pushes beyond its original boundaries into more bucolic environs.

It may be possible under local laws to expand the city's boundaries or it may not be. San Jose, Calif., is famous for its large annual number of annexations of bits of adjoining territory, while Boston is a good example of a city which is only a small part (about 15 percent) of its overall metro area and which cannot annex adjoining towns. There are quite a few cities for which the problem is lessened. Viewed from the air, Omaha and St. Louis appear more like islands of urban development amid the hills and farms. The Census Bureau has even defined Urbanized Areas (UAs) to correspond to the appearance of continuously built-up areas, but the detailed population data needed to build up those areas can only be obtained during a full census, that is, every 10 years.

The Small Society, by Brickman

HOO-BOY! I SURE WOULD LIKE TO LIVE IN THE COUNTRY...
...BUT EVERY TIME I MOVE THE CITY OVERTAKES ME!

1985 King Features Syndicate, Inc.

Is it 'impossible to draw an accurate line showing where country leaves and city begins'?

The "World's Largest" What?

Now, from Philadelphia to what PRB has come to refer to as the "Tokyo problem."

In attempting to answer the simple question "What is the world's largest city?" one might turn to the publications of major organizations which have spent a great deal of time compiling lists of such things. One of the more commonly used lists is that published by the United Nations, giving the ranking of the 30 largest "urban agglomerations." These metro areas vary somewhat from country to country (if they are defined at all) and have names such as metropolitan districts, *zonas metropolitanas*, or conurbations.

The UN lists the metro areas as reported and defined by the country, if possible. This list gives Mexico City as the world's largest with a metro population of 18 million. Tokyo-Yokohama is next with 17 million. (One odd entrant is Rhein-Ruhr, West Germany; this heavy industry zone is certainly built-up, it has a population of 9 million, but it jibes with few people's notion of a "city.")

The *Information Please Almanac* includes a table showing Shanghai's population as the largest with 10.8 million, but the *Almanac* notes that metro areas and cities proper are mixed within the table and cautions that the rankings are "approximate." The *Encyclopedia Britannica* notes that the term "city" has many meanings and that "it is impossible to draw an accurate line as to where country leaves and city begins."

That may be too harsh a statement since, given sufficiently detailed data, such a demarcation can be attempted, if quite laboriously. In a new profile of world population, the U.S. Census Bureau's Center for International Research has ranked the world's major metropolises, along with summarizing other world population measures and trends (see "Census Bureau Takes on World," page 9).

Number One, by the Census Bureau's reckoning: Tokyo-Yokohama, a 1,089-square-mile area with an estimated 25.4 million people as of 1985.

Continued on next page

Demographer's Page

Continued from preceding page

Mexico City, usually cited Number One by the UN and the media, comes in a distant second in this listing, a 522-square-mile area with 16.9 million people as of 1985. Sao Paulo is third (451 square miles, 14.9 million); New York is fourth (1,274 square miles, 14.6 million); and Seoul, fifth (342 square miles, 13.7 million).

To arrive at meaningfully comparable totals, the Bureau first had to create a consistent definition of "city." The principal parameter: "population clusters of continuous built-up area with a population density of at least 5,000 persons per square mile."

With this definition in hand, the Bureau proceeded to examine closely the geography of the world's urban sprawls. The population "boundary" of each city was determined by examining detailed maps in conjunction with the most recent official population figures. In principle, contiguous areas meeting the density requirement were included as part of the city for estimation purposes, no matter how these might differ from the local political-jurisdiction borders. So that Detroit "includes" Windsor, Ontario, for example. (Nonresidential areas such as airports, industrial parks, etc., were purposely excluded from area calculations so as not to skew the final density figures.) The result: a persuasive population ranking of the top 85 cities according to a common measure.

Still, any researcher wishing to obtain a population figure for say, Tokyo, would do well to understand what is meant by such areas as Tokyo-to, the Ku area, and Tokyo Metropolis and to allow for demographic changes. When Nassau and Suffolk counties were removed from the New York metro area in the 1970s, for instance, the published population for "New York" decreased by some 2 million.

Since there is no easy answer to the question of cities, what to do? The most practical solution is to pick a list one feels reasonably comfortable with, understand the methods used to compile it, and stay with it. At least one can then be consistent when observing cities' rise and fall on world rankings of population size.

Meanwhile, here in the tri-state area

Reference

1. Haub, Carl, The Last Metro Definition? *Population Today*, Nov. 1985.

LETTER TO THE EDITOR

There is a major flaw in the note "Fertility and Revolution" (*PT*, "Take a Number," July/August 1986). Your statement attributing the Hungarian fertility decline of the 1950s to the 1956 revolt is unsubstantiated. Let me list several circumstances that should be taken into account.

1. One of the reasons for what is labeled a modest postwar "baby boom" is the fact that existing stringent anti-abortion laws were being increasingly enforced in the early 1950s because the government was worried about declining fertility. An eminent Hungarian social scientist, Imre Hirschler, evaluated the fertility increase of the early 1950s as follows: "The achieved increase in the number of births can . . . be attributed . . . to the draconian severity of punishment for criminal abortions . . . ." ("Volksrepublik Ungarn," *Internationale Abortsituation, Abortbekamptung, Antikonzeption*, ed. Karl-Heinz Mehlan, Leipzig: VEB Georg Thieme, 1961, pp. 114-122.)

2. The highest postwar level of fertility, a total fertility rate (TFR) of 3.0, was achieved in 1954. By 1956 the TFR had declined to 2.6, i.e., by the time of the 1956 revolt a fertility decline was already under way, as was the case in other East European countries such as Bulgaria, Czechoslovakia, Poland, Romania, and Yugoslavia.

3. Liberal induced-abortion legislation making abortion available upon the request of the woman was enacted in Hungary in June 1956, six months before the revolt.

4. During the postwar period, major social and economic transformations were under way, and these were influencing reproductive behavior. Some of these were peculiar to the East European political systems, but most of them were common to all developed countries, such as rising material expectations and aspirations, gradual emancipation of women, increased female labor force participation, and numerous other trends.

In sum, it is unlikely that a fertility trend in any one country can be explained by a single event. The fertility decline of the 1950s in Hungary might have been slightly modified by the 1956 revolt, but it is fair to assume that this decline would not have been very different, even without the revolt.

Sincerely,
Tomas Frejka
Senior Representative
Latin America and the Caribbean
The Population Council
Mexico City

While no demographic trend can ever be attributed to a single cause, dramatic events can intervene to produce short-term changes in rates. In Hungary, the sharp drop in fertility in 1957 was obviously affected by abortion legislation, as Dr. Frejka points out, and the effect of the revolt can never be known. Could the political and economic situation have motivated women to use abortion? In any event, many have noticed the negative natural increase reported by Hungary and wondered why, since its total fertility rate is higher than West Germany's. The smaller number of women in the most fertile age groups accounts largely for this. If the age distribution had been more "normal," Hungary would likely have had a slightly positive natural increase.

—Editor's note

Project HEAP's Population Push

The American Home Economics Association (AHEA) is renewing its program efforts involving pregnancy prevention, population education, and family planning activities.

A new grant from the Hewlett Foundation will provide renewed funding for AHEA's Project HEAP (Home Economics Assistance in Population Programs) for another three-year period, Gladys Gary Vaughn, AHEA research unit administrator, announced. The grant includes assistance to population education programs both in less developed countries and in the U.S., although approximately 80 percent of the assistance is earmarked for the former.

The AHEA holds a longstanding interest in population issues around the world. Its emphasis on providing leadership in population/family planning education was outlined in its Resolution on Population adopted by the AHEA Assembly in June 1985. In November 1986 its Population Education Committee revised and set additional objectives for its new Five Year Plan for Population Programs.

The U.S. phase of Project HEAP focuses primarily on adolescent pregnancy prevention, including teacher-training workshops and dissemination of research findings, Vaughn said. Another project involves community outreach to limited English-speaking groups, such as Laotian and Haitian refugees, and other special groups such as black and hispanic Americans, as well as incarcerated youth and low-income teenagers.

International initiatives include continued support of AHEA's Project Rural Reach, which trains Tanzanian field workers to reach village women with population/family planning information.

Also planned by AHEA are expansion of Project Rural Reach to another African country, support of African home economists' population presentations at the 16th Congress of the International Federation of Home Economics (to be held in Minneapolis in 1988); dissemination of population education training information and program/management models in newsletters such as AHEA's *International Update;* and additional special projects.

–*M.D.*

POSITIONS/PROFESSIONALS

Director of News Polling and Research, *Minneapolis Star and Tribune,* to be responsible for newspaper polls and related newsroom research. *Qualifications:* experience in journalism and research, including statistics and survey design; graduate degree in research-related field. *Salary:* open. *Contact:* Mike Finney, Deputy Managing Editor, 425 Portland Ave., Minneapolis, Minn. 55488.

POPULATION UPDATE

Estimated United States Population:

As of September 1, 1986	241,888,000
As of September 1, 1985	239,494,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 994.

Estimated World Population:

As of February 1987	4,991,000,000
Annual growth	83,000,000

Estimated by extrapolation of the mid-1986 population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: September 1986

	12 months ending with September					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,726,000	3,750,000	15.5	15.8	15.5	15.8
Deaths	2,096,000	2,082,000	8.7	8.8	8.6	8.6
Natural increase	1,630,000	1,668,000	6.8	7.0	6.9	7.2
Marriages	2,387,000	2,432,000	9.9	10.2	10.5	10.6
Divorces	1,181,000	1,187,000	4.9	5.0	4.9	5.1
Infant deaths	39,300	39,300	10.6	10.5	10.7	10.9
Population base (in millions)			240.4	237.8	235.6	233.2

Note: Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source: Monthly Vital Statistics Report (Vol. 35, No. 9) from the National Center for Health Statistics.

Census Bureau Takes on World

The U.S. Census Bureau's new *World Population Profile: 1985* is a snappy 53-page summary of the latest population trends around the globe. Aimed at a general audience, the *Profile* glossily glosses demographic highlights with special paragraphs, supplemented by numerous charts, graphs, and succinct sidebars. Of particular help are basic statistics on 205 geopolitical entities (including Taiwan), and the Bureau's urban-area population summary breaks new ground in the way the areas were counted. (See "Demographer's Page," page 6.)

For information on *World Population Profile: 1985,* contact: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

TAKE A NUMBER

Japan Again: It would appear that Japan will have record low infant mortality – it already has the world's highest life expectancy – when all country results for 1985 are in. In 1985, Japan's infant mortality was 5.5 infant deaths per 1,000 live births, and data from the first months of 1986 suggest that the rate is still declining. This trend in the Japanese rate is particularly interesting since other developed countries with very low infant mortality have, thus far, seen their IMR decline level off at about 6.0 and none have gone below 6. Finland, for example, reached 6.0 in 1982, but the rate for the next two years was 6.2 and 6.5, respectively.

South to Rise Again?: Florida wrested the fifth spot on the list of state population sizes from Illinois in 1986, according to the Census Bureau. Not content with that, the Sunshine State will almost certainly pass Number 4 Pennsylvania in 1987. The 1986 estimate for Florida was 11,675,000, an increase of about 300,000 over 1985. Florida should approach 12 million later this year and surpass Pennsylvania's 11.9 million given the very slow growth in that state. That may end Florida's climb up the population ladder for some time. Texas, in the third spot, was approaching 17 million in 1986 and adding numbers of people at a pace at least as fast as Florida. California and New York, of course, occupy the top positions. While California's 27 million and high population growth should guarantee it the top position for the foreseeable future, New York could easily be passed by Texas before 1990 – unless the recent "oil bust" is for real.

Here and There . . . South Korea's sex ratio at birth has risen to 117 boys to 100 girls, a result of a preference for male babies and prenatal amniocentesis tests … official estimates for the Commonwealth of Puerto Rico through 1985 indicate that emigration, probably to the U.S., may have begun anew … Cuban infant mortality was down to 13.9 infant deaths per 1,000 births in 1986 … the U.S. Immigration and Naturalization Service reports that there was a 30 percent drop in apprehensions of illegal aliens since September; no one knows if this might be a result of the new U.S. immigration legislation.

Correction: The good news about more detail on the migration question (*PT*, Dec. 1986) applies to the Current Population Survey (CPS), not the 1990 Census. The Census Bureau plans to add a question on reason for moving and activity one year ago to the CPS, beginning with the March 1988 survey. —*CH*

ADDENDA

The world needs more population in its literature. True, there have been population-explosion novels, like *The Wanting Seed*, by Anthony Burgess, and *Make Room! Make Room!* by Harry Harrison.

More advanced are the novelist displaying demographic sensitivity. Jonathan Swift and Edgar Rice Burroughs (in *Gulliver's Travels* and *A Princess of Mars*, respectively) showed enviable demographic awareness, limning the dynamics of their population as *a matter of course*, something Ernest Hemingway probably wouldn't have dreamt of (unless the population was of antelope).

But how about some emotion, folks? Consider our favorite population reference, a little throwaway occurring in the futuristic novel quoted at the right.

> *Dad sniffed the steaks and grinned. "Oh boy! Bill, you'll bankrupt us."*
>
> *"You let me worry," I said. "I'm still plus for this quarter." Then I frowned. "But I won't be, next quarter, unless they quit cutting the ration."*
>
> *"Did you notice the results of the Chinese census as well? Try it on your slide rule."*
>
> *I knew what he meant – and the steak suddenly tasted like old rubber.*

– from *Farmer in the Sky*, by Robert A. Heinlein, a 1950 science fiction novel for young people about the crowded 22nd century. Nothing ruins a good steak like hearing census results.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

POPULATION GROWTH IN LATIN AMERICA AND U.S. NATIONAL SECURITY, edited by John Saunders. Winchester, Mass. Allen & Unwin, 1986. 305 pages. $25.00. ISBN 0-04-497002.

In 1950, Latin America and North America had approximately equal populations: about 165 million.

Since that time, population in Latin America has increased by two-and-one-half times, while North America grew by 60 percent. Even with slower growth rates, Latin America's total population will probably end up being twice as large as North America's before the two reach some form of population stabilization.

Because of their geographic proximity and common economic and political ties, population trends in Latin America have major implications for the security interests of North America. This theme was the focus of a recent conference at Mississippi State University's Center for International Security and Strategic Studies, and the papers presented at the meeting have been edited in this volume by Professor John Saunders. It brings together expertise in demography, sociology, political science, international affairs, and related fields.

The papers are divided into two groups, one providing a demographic perspective and the other examining security dimensions. On the demographic side, Stycos reviews current and prospective population trends; Gendell examines the links between population growth and labor absorption; Diaz-Briquets and Macisco analyze emigration trends; Musgrove discusses the question of food supply; and Clinton looks at the extent to which population growth is eroding development efforts.

In the section on security, Howard and Ieda Wiarda study links between demographic factors and internal unrest in Latin America; Mason examines the contribution of demographic factors to the political crises in Central America; Papp links the labor absorption and food supply issues to U.S. security interests; Hayes provides a similar focus on economic questions, and Taylor discusses military regimes and military assistance.

Introductory papers by DeWitt and Saunders provide a thoughtful context for the reader to think through the complex issues involved. The volume provides no ready answers, but rather offers a broad range of experience and insight for those interested in the implications of Latin American population trends.

– Thomas W. Merrick

AN INTRODUCTION TO POPULATION, by Kenneth C.W. Kammeyer and Helen Ginn. Chicago. The Dorsey Press, 1986. 336 pages. $33.00. ISBN 0-256-03446-X.

The past few years have seen an "explosion" of basic textbooks, with courses being taught under such titles as "population studies" or "population problems" or "introduction to population" – not courses in demography per se, but rather introductions to the exciting area of population dynamics. Since both students and teachers come to these courses from many disciplines, there is a need for a variety of textbooks emphasizing different approaches.

In this expanding field, Kammeyer and Ginn's new text occupies an important niche. *Introduction to Population* follows their mid-1970s volume, in vastly expanded and revised form; still relatively brief, its 282 pages of main text are concise and exceedingly well written for its intended audience: freshmen and sophomores taking electives while searching for a major.

"The students who elect to take a population course usually have a mild curiosity about the field," the authors explain, "combined with some expectation that they will find the study of population to their liking. We have tried to write a book that will satisfy that curiosity and demonstrate the attractiveness of population as a field of study." They have succeeded admirably in following their own teaching goals.

The book stresses that population is both an independent and dependent variable, and emphasizes the consequences of this for the society. Both Kammeyer and Ginn are sociologists, and this is reflected in their approach, a definite plus factor.

Many studies are discussed to illustrate their demographic as well as societal importance. These range from Kitagawa and Hauser's study of social class and mortality to Lincoln Day's on religious differentials in fertility. As a result the students are introduced to the most important work in the field and how it relates to the real world. The final chapter devoted to "Politics and Population Policy" is particularly appropriate for the intended audience.

It should be emphasized that this is a *basic* textbook. The authors discuss life tables and net reproduction rates but do not attempt to show how to construct these measures. For the instructor who prefers to emphasize his or her own lectures and use a text to complement these presentations, Kammeyer and Ginn's new book is worth giving serious consideration.

– Leon F. Bouvier

SPOTLIGHT

SINGAPORE

Population (mid-1986 est.): 2.6 million
Land area: 226 sq. miles
Population density: 11,504 people per sq. mile
Births per 1,000 pop. (1985 est.): 16
Deaths per 1,000 pop. (1985 est.): 5
Rate of natural increase (1985 est.): 1.1 percent
Total fertility rate (1985 est.): 1.7
Infant mortality rate (1985 est.): 9.4 infant deaths per 1,000 live births
Life expectancy at birth (1982): 71 years
GNP per capita (1984 est.): US$6,660

by Arthur Haupt

Located at the end of the Malay Peninsula on an oblong island and nearby islets, the tiny but densely populated city-state of Singapore has a population of 2.6 million, 76 percent Chinese, with Malays constituting 15 percent, Indians and Pakistanis 7 percent, and trace elements of numerous other nationalities.

It was a fishing village of 200 people when it was purchased in 1819 by the British East India Company. By the early 20th century Singapore had become an important colonial naval base in the Strait of Malacca, and was known to the British as "the Gibraltar of the East."

In 1963 it achieved independence as part of Malaysia. But after racial unrest erupted between the city's majority Chinese and Malays, it seceded from Malay-dominated Malaysia and in 1965 became an independent republic.

Singapore possesses no significant natural resources, and has always generated its own economic progress. Traditionally successful as a commercial and trade center, in the early 1960s it followed the recommendations of a UN survey to industrialize its economy.

The drive toward economic development has been by any measure spectacularly successful. Singapore now has very nearly the highest national GNP per capita of any less developed country. Its wages are much higher than those of other "economic miracle" Asian countries (e.g., Taiwan and Korea) and approach those of Japan.

It has accomplished this thanks largely to a (from a management standpoint) dream labor force, national economic plans that have shrewdly encouraged the right industries, and a political consensus that authority was best devolved from above.

During the 1950s, population growth was nearly 5 percent a year due to high fertility and intensive immigration. In 1961, the government initiated a national family planning program aimed at reducing fertility and population growth. Foreign workers were also strictly regulated.

The population program, with its slogan "stop at two," was effective; the total fertility rate fell from 5.5 to the present 1.7. With fertility now below replacement, Singapore's Population and Family Planning Board began to wind down its activities, and Lee Kuan Yew, Prime Minister as well as prime mover of Singapore since independence, has launched a new, pronatalist battle cry: "At least two. Better three. Four if you can afford it."

Singapore, however, is a congested place. The jungle that once overgrew the island has nearly vanished, replaced by urban construction, satellite cities, and new landfill. Some 30 percent of the population lives in public high-rise apartment complexes.

In a recent speech, Lee pointed out that "We wouldn't be here [nor] have made the economic progress, if we had not intervened on very personal matters – who your neighbor is, how you live, the noise you make, how you spit (or where you spit), or what language you use ...." Under Lee, Singapore's form of government has been an honest but no-nonsense one-party democracy that brooks dissent but prefers orderliness. In short, the tiny island offers a futuristic glimpse: a paved-over, productive, and mostly harmonious society, well on the way to developed-country status – and living in very close quarters.

Singapore grows up, not out.

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PRB *A publication of the Population Reference Bureau, Inc.*

FROM THE EDITOR'S DESK

The "Demographer's Page" on page 6 of this *PT* features a thoughtful essay by Michael Teitelbaum on demography's newest issue, the prospect of population decline in the more developed countries. This trend has advanced farthest in Europe, as described in PRB's *Bulletin* for March, "Europe's Second Demographic Transition" (see page 5).

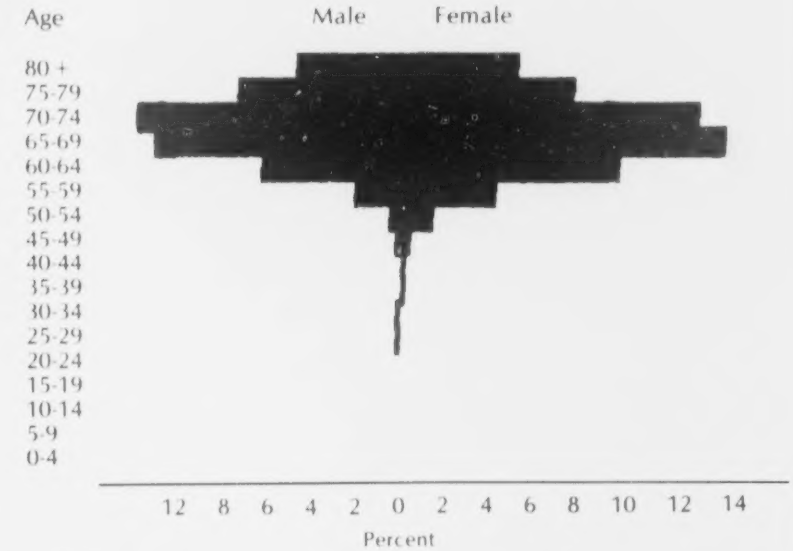
Reaction to the eventuality of population decline has been predictably varied and somewhat confused. Based on telephone calls received at PRB, however, the subject may at least serve to widen public understanding of what "replacement level" fertility is all about. Perhaps the day will come when we can use the term "total fertility rate" in an article without having to explain it.

But if anything seems clear from the increasing public curiosity, it's that the matter is not going to go away. As more and more European countries put minus signs in front of their growth rates, more and more people will notice. Perceptions of the whole question of population growth will change and interest heighten – without, we hope, the whole thing degenerating into a round of "we-they" rhetoric. Perhaps the fastest way to raise consciousness of the concept of "doubling time" may be an understanding of "halving time."

—Carl Haub

SPEAKING GRAPHICALLY

Sun City, Arizona



Pyramid? The above population age-sex structure, based on 1980 data, is an example of what shapes can be produced on a personal computer with the program "Population Pyramids" (see Softwhere, page 9; the type was, however, set by our typesetter). You can call it a pyramid out of courtesy, but Sun City's profile has more in common with a twister about to set down in *The Wizard of Oz*.

POPULATION TODAY

VOL. 15, NO. 3 March 1987

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States, printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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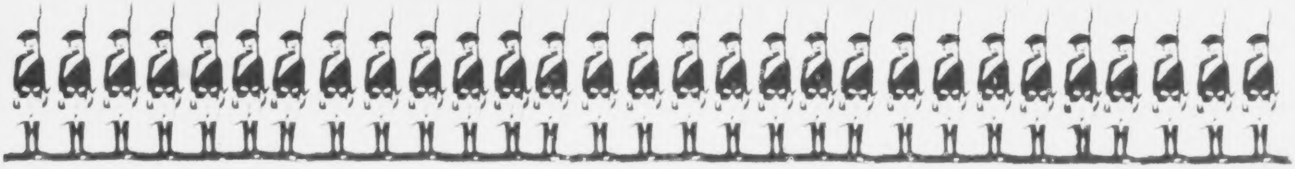
Human Resources Under Arms



In 1986, China's armed forces – the world's largest, with 4.1 million men – took steps to cut manpower by 1 million.

This move does not signal the arrival of a suddenly safe world – not in a time of large-scale wars in the Persian Gulf and Afghanistan, and most recently, substantial buildups of tensions and troops on the Pakistan-India border. Rather, China's unilateral demobilization is another major domestic reform encouraged by Vice Premier Deng Xiaoping to modernize the world's most massive government.

The reduction in force draws attention to the sometimes tenuous relationship between population and military strength. While cutting its military, Beijing is endeavoring not to weaken national defense, but to make it more efficient. And interestingly, during the past decade available figures suggest that in the world as a whole, the military may have declined as a proportion of population.

Year	Armed forces (figures in millions)	World pop (figures in millions)	Armed forces personnel per 1,000 pop
1974	26.9	3,992	6.7
1975	26.0	4,082	6.4
1976	26.2	4,158	6.3
1977	26.1	4,230	6.2
1978	26.5	4,303	6.2
1979	26.9	4,376	6.1
1980	27.0	4,463	6.0
1981	27.9	4,541	6.1
1982	28.3	4,589	6.2
1983	28.4	4,667	6.1

Source: 1985 *World Military Expenditures*, U.S. Arms Control and Disarmament Agency. Figures do not include reserves.

Peace has not exactly broken out, of course; during the same 10-year period, when world military population was going up by 6 percent and world population as a whole was rising by about 19 percent, world military expenditures were mushrooming by 38 percent, as measured in constant 1982 dollars.

The Top Ten armed forces, by population, as of 1983 (does not include reserves):

Country	No. in armed forces	Armed forces personnel per 1,000 pop
China	4,100,000	4.0
USSR	3,800,000	14.0
U.S.	2,222,000	9.5
Vietnam	1,221,000	21.4
India	1,120,000	1.5
Turkey	824,000	16.8
No. Korea	784,000	41.3
So. Korea	622,000	15.2
France	578,000	10.5
Italy	498,000	8.9

Source: Ruth Leger Sivard, *World Military and Social Expenditures 1986* and PRB *World Population Data Sheet*.

These are peacetime forces (with the partial exceptions of the USSR and Vietnam, which are engaged in limited wars abroad) and could be boosted in a national emergency with reserves and universal conscription. In the meantime, many of them have important national peacetime tasks (public works, road building, etc.) which account for their size as much as the possibility of national threats.

The tenuous relationship between population and military strength

When all is said and done, the reason for the decade-long dip in armed forces per 1,000 population may be that 28 million soldiers worldwide are sufficient to cope with international tensions, whatever the future level of global population. The magnitude of military "populations" may no longer be as closely linked to the concept of total strength as in the past (see page 4).

The Big Two

The major powers, after all, place great reliance on technological and productive prowess (both dependent upon gigantic expenditures of funds) in order to maintain strategic parity. Had the two mightiest superpowers maintained their World War II proportion of armed forces to population, the U.S. would now have 20 million in uniform, while the USSR's forces stood at 18 million.* Instead, these two countries make do with just over 2 million (the U.S.) and nearly 4 million (the USSR).

Maintaining the 3.8-million-person Soviet Army requires well over 1 million draftees every year for two years of universal military service. Wartime and domestic upheavals, however, have altered Soviet age structure so that the cohort of 18-year-old males in 1985 (born 1968) was estimated to be 2.1 million – half a million *smaller* than the 18-year-old male cohort in 1979 (born 1961), which was 2.6 million, so that the vast majority of the cohort would have to be drafted.

This demographic trend may have bottomed out and started to rebound. Even so, the U.S. Census Bureau, which prepared these estimates, projects that the Soviet 18-year-old male cohort of 2000 (born 1982) will number only 2.5 million, still fewer than the 18-year-olds of 1979.**

Since conscripting most young Soviet men who turn 18 each year could have disruptive effects on the needs of the civilian labor market, the

Continued on next page

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*Although less involved in World War II than the invaded USSR, the U.S. at peak strength had a slightly greater proportion of its population in uniform.

**According to the Census Bureau, during the 1970s, ethnic Russians ceased to be a majority in the 15-19-year-old birth cohorts; the 1979 estimate: 47 percent.

Military

Continued from preceding page

USSR may be forced to turn to three-year terms of service. In 1985, conscription rules were changed to allow the drafting of women into the military for specialized tasks, but in what numbers this has actually occurred is unknown.

In the U.S., the 18-year-old male cohorts have also been shrinking as a result of the baby bust that began in the mid-1960s. The 1985 18-year-old cohort consisted of 1.8 million men, 16 percent fewer than the 1979 cohort of 2.2 million. Although not as drastic as the Soviet case, the U.S. demographic constraints, and dependence on an all-volunteer force, mean providing inducements for young people to enlist.

In 1970, during the Vietnam conflict, the U.S. had 3 million active duty personnel worldwide. By 1975, its armed forces had shrunk to 2.1 million, and they have remained at about this level ever since, with the armed forces per 1,000 population declining from 9.9 in 1975 to 9.0 in 1984.

Even with troop strength holding steady, defense outlays during the same period nevertheless still rose about 30 percent in constant dollars.

The threat of nuclear holocaust has loomed as a major new factor in the military-strength equation. Although the two greatest conventional powers also started the nuclear "club" following World War II, the threat of these weapons has to some extent made military power independent of population size. Population and economic clout are only militarily important factors insofar as they can be deployed; the nuclear trump card makes it difficult and risky to utilize these factors to their full potential.*

The Ranks of LDCs

Of the worlds' roughly 28 million soldiers, over 17 million are in the less developed countries (LDCs). These nations' armed forces have somewhat lower manpower levels than the more developed countries (MDCs): 4.9 under arms per 1,000 population, compared to 9.8, as of 1983.

Notwithstanding these manpower differences, Ruth Sivard, in her annual compendium of world military costs,** calculates that military budgets consume about the same proportion of national GNP for both LDCs and MDCs: about 5.5 percent.

What has all this money bought? The purpose of armed forces is assumed to be protection and peacekeeping. Since 1945, according to Sivard's tally, 120 wars (inter- or intranational military

Continued on page 9

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*It has been pointed out that in 1871, the U.S. launched a punitive expedition against Korea after that nation had seized a U.S. ship. When North Korea seized the *U.S.S. Pueblo* in 1968, the U.S. decided that the benefits of punitive action were not worth the risk – even a slight risk – of escalation into superpower confrontation.

**Ruth Leger Sivard, *World Military and Social Expenditures 1986*. Washington, D.C.: World Priorities, Inc., 1986.

A Brief History of Military Populations

Common sense suggests that army strength is proportional to size, other factors being equal, bigger should be better.

For most of history when populations were relatively small, so were armies. Alexander the Great's forces numbered 30,000 to 40,000. William the Conqueror invaded England with 50,000 men and during the wars of the 16th and 17th centuries, even massive armies usually numbered only in the tens of thousands. But in the 18th century, as modern nation-states arose, patriotism, universal conscription, and more centralized national authority enabled governments to raise armies of greater and greater size – notably the army of the new French republic, which in 1794 fielded a gigantic conscript army of 800,000 (out of a population approaching 29 million) – the largest military force Europe had ever seen.

As national populations grew, technological advances such as railroads enabled larger numbers of soldiers to function as cohesive wholes over broader geographic areas, organized into regiments, divisions, or corps of divisions. Armies also became more specialized (in Ancient Greece, Alexander didn't require locomotive repair crews or meteorology staffs). An extreme example of military growth: Just prior to the Civil War, the United States's standing army stood at 15,000. By the end of the Civil War, the Union side had 1 million men under arms and the Confederacy, 900,000.

During World War I, military forces expanded to hitherto unimaginable levels. Some 65 million troops were mobilized 1914-1918, and about 19 million soldiers and civilians were killed – the bloodiest war in history up to that time. In the postwar period, President Woodrow Wilson proposed that the League of Nations covenant forbid conscription; however, nothing came of this scheme for preventing full-scale war.

The numbers were even higher for World War II: total armed forces of close to 100 million, an estimated 38 million soldiers and civilians killed.

World War II was the historic high point of using manpower and economic production to conduct a war. (During both World Wars, 3 or 4 percent of the world's population was in uniform at some time or other.) The world's two most populous developed countries – transcontinental powers both – also possessed the world's largest armies. The USSR's Red Army had a peak strength of 12.5 million men under arms; the U.S., 12.3 million.

In the period immediately following World War II, U.S. forces sank to a peacetime level of 1.5 million (though soon to resurge to 3.6 million during the Korean conflict). The Soviet Army declined to 3 million. The building of nuclear strategic forces began, and the rest is history.

Europe's Second Demographic Transition

"The only reasonable expectation is that Europe – at least most of it – will inevitably see birth and death rates converge at low levels, followed by population decline."

That is the conclusion of Dutch demographer Dirk J. van de Kaa in PRB's *Bulletin* for March, "Europe's Second Demographic Transition." Van de Kaa is former director of the Netherlands Interuniversity Demographic Institute, president of the European Association for Population Studies, and professor of demography at Amsterdam University.

At the peak of the postwar baby boom in 1965 – the year van de Kaa terms "The Great Divide" – fertility stood well above 2.5 births per woman in Northern, Western, and Southern European countries. By 1985 the rates in all but Albania, Malta, Ireland, and Turkey were well below the replacement level of 2.1 and as low as 1.29 in West Germany. Eastern European rates were under 2.5 in 1965, rose in response to restrictions on legal abortion and pronatalist economic incentives, but are now also all below replacement level except in Poland.

Austria, Denmark, Hungary, and West Germany have already slipped into natural population decrease (fewer births than deaths), van de Kaa reports. Teetering on the brink are Belgium, Bulgaria, East Germany, Italy, Sweden, Switzerland, and the United Kingdom.

Current UN medium projections show Europe's population (minus the USSR) inching up only 6 percent between 1985 and 2025, from 492 to 524 million, while world population nearly doubles, from 4.5 to 8.2 billion. In 2025 nearly one in five Europeans will be pensioners aged 65 and over, with a shrinking working-age population to support them. Even these projections assume a rise in Europe's fertility to replacement level by 2020-2025, van de Kaa points out, a prospect he considers unlikely, though a slight rise in rates from 1983 to 1985 in Denmark (1.38 to 1.45 births per woman) and Sweden (1.61 to 1.73) suggests "the low point might have been reached."

He sees the fertility plunge as a reflection of a dramatic shift in norms that started in northwestern Europe and is now gaining momentum elsewhere. The fertility drop during Europe's first demographic transition from 7 or 8 children per woman in the 1880s to 2 or 3 in the 1930s was propelled by "a concern for family and offspring." Now a tide of individualism, progressiveness, and "postmaterialism" is moving Europeans away from marriage and parenthood, he says. In Northern and Western Europe, cohabitation is increasingly accepted as "normal" and indications are that possibily as few as 50 to 60 percent of men and women in future generations will ever marry. Having a child is now more and more a deliberate choice made to achieve greater individual "self-fulfillment," with little fear that the child will be stigmatized if born out of wedlock.

Some countries are further along in the transition, van de Kaa observes. Proportions of out-of-wedlock births vary from 0.6 percent in Malta and 1.6 percent in Greece to 45 and 46 percent in Iceland, Denmark, and Sweden. In the latter three countries, the mean age of women at first marriage is now higher than women's mean age at first birth.

Many Europeans are sure below-replacement fertility and aging populations spell the end of national influence in regional and world affairs and collapse of social security funds, van de Kaa observes. France has stepped up pronatalist economic incentives and launched campaigns to "Ouvrons la France aux enfants." In the Netherlands, however, "a large majority shares the official view that an end to natural population growth should be welcomed."

Pronatalist economic incentives are seen as politically risky and costly, with no guarantee of success. Even using such incentives, Eastern European governments have not managed to boost fertility back up to replacement level despite incentive packages that include subsidized maternity leave up to three years in Hungary and allowances amounting to 53 percent of average monthly wages for a three-child family in Czechoslovakia.

Relying on immigration as a solution is "practically out of the question," van de Kaa says. All destination countries have now imposed strict controls, tried to stimulate return migration of guest workers recruited in the 1960s and early 1970s, and aim at rapid integration of current minorities.

The only hope lies with new, "more imaginative" measures to stimulate fertility, says van de Kaa. He cites U.S. demographer Paul Demeny's proposal

Continued on page 10

Il paraît que je suis
un phénomène socio-culturel
LA FRANCE
A BESOIN
D'ENFANTS.
CAMPAGNE RÉALISÉE PAR AVENIR.DAUPHIN GIRAUDY

"I am a sociocultural phenomenon," bewails this French baby in a pronatalist ad

DEMOGRAPHER'S PAGE

The Fear of Population Decline

by Michael S. Teitelbaum

The following Demographer's Page is adapted from Teitelbaum's address at the Population Reference Bureau Awards Dinner, Oct. 23, 1986. Teitelbaum is the co-author, with Jay M. Winter, of *The Fear of Population Decline* (Orlando, Fla.: Academic Press).

Ladies and gentlemen, my topic today – past and current fears about population decline – may seem a little perverse to some of you. After all, there have now been fully two decades of active scientific debate about rapid population *growth*.

In fact, scientific and unscientific discussion of population decline not only has a long and distinguished history, but concern about this issue has emerged in recent years – in Western Europe, Canada, and even the U.S. I expect that if fertility continues low, such concerns will grow; indeed, Ben Wattenberg of the American Enterprise Institute has forthrightly announced a concerted campaign to sound the alarm that low fertility will threaten the power of NATO vis à vis the Warsaw Pact – a classic repeat of the "strategic demography" that prevailed in France between the Franco-Prussian and First World Wars.

Confusion and Other Phenomena

In the short time available, I want to present for your consideration four points that can be learned from past debates about current and forthcoming alarms regarding population decline:

1. There is confusion about the very meaning of "population decline." Consider the diverse meanings given to these two simple words in past and current debates:

- a decline in the aggregate size of a population;
- a decline in the crude rate of population growth;
- a decline in natural increase or in the crude rate of natural increase;
- a decline in the crude birth rate;
- a decline in total or age-specific fertility rates;
- a decline in the net reproduction rate or the intrinsic rate of natural increase;
- a decline in the net reproduction rate or intrinsic rate of natural increase to levels below replacement;
- a decline in desired or expected family size among young couples;
- a decline in the proportion of young people and an increase in the proportion of old people in a population, or an aging of the population;
- a decline in subjectively defined attributes of a society with a growing population, e.g., declines in innovation, mobility, risk-taking, and optimism, and an increase in subjectively defined attributes of an aging population, e.g., conservatism, immobility, risk-aversion, and pessimism.

> Concerns about population decline are entangled in political and social questions

Unhappily, few writers on population decline have bothered to identify to which of these levels their thoughts have been directed.

2. Political ideologies and cultural values have loomed large in discussions of population decline. Population decline is not seen as simply fewer "warm bodies," but instead is visualized through the lenses of sociocultural values.

Otherwise, how could there have been any concern about population decline in the postwar period? During the past four decades, the world's population has increased by some 2.3 billion, or over 90 percent (up to 1985). Future trends show global population increasing by another 3.3 billion, or nearly 70 percent by the year 2025.

To put it crudely, since the onset of mortality declines two centuries ago, there have been no shortages of humans, only perceived shortages of particular kinds of humans (e.g., regional or national groupings, or subnational groups defined culturally). Because of such perceptions, concerns about population decline have always been, and continue to be, deeply entangled in most of the major political and social questions of the past century.

To cite one example, the French premier Jacques Chirac can simultaneously decry the prospective decline in the population of France *and* urge the repatriation of Arab immigrants and the restriction of further immigration. Also in France, nationalists on the right have used population decline arguments to justify French imperial expansion, and to explain the economic and military decline of France during the 19th century (forgetting, of course, other factors such as the French Revolution, the Terror, the rise of Napoleon, the Napoleonic Wars, and so on).

Meanwhile, the political left often has shared these nationalistic and strategic concerns. Consider that in the 1930s explicitly pronatalist policies were embraced by Adolph Hitler and by Joseph Stalin. Consider also that today, socialist states include not only the most strenuously antinatalist (China), but also the most blatantly pronatalist (Romania). In the West, the left has concentrated upon the threat posed by population decline to their desires to expand and strengthen the welfare state.

3. Demographic methods, and some prominent demographers, have played central roles in discussions of population decline. Development of demographic concepts such as the intrinsic rate of increase, the net reproduction rate, and the total fertility rate, coupled with the methods of demographic projection, led to the last bout of alarms about population decline, during the 1930s. There were open predictions that the population of the United Kingdom and France would be far smaller in the 1950s than in the 1930s.

In some respects, these flawed predictions arose from misunderstanding by the demographers of the day. In their enthusiasm for these new and powerful con-

Continued on next page

Michael S. Teitelbaum is a program officer
at the Alfred P. Sloan Foundation

cepts and methods, some believed that the period net reproduction rates or intrinsic rates were direct reflections of cohort fertility behavior, and that demographic projections provided robust population predictions.

Although we know better now, it is ironic that exactly the same mistakes are being made at this very moment by nondemographers who have begun to sound the alarm about future population declines in the West.

4. The future course of fertility is no less murky today than it was in the 1930s. We all may have our opinions, but none of us can actually know whether fertility at current levels represents:

- a temporary pause on a continuing downward trendline;
- the "bottom" of a long decline;
- or some sort of rough equilibrium level of fertility in a postindustrial society.

Ironically, now that 90 percent of U.S. women have developed the capacity for rational control over their fertility, we demographers are experiencing increasing difficulty in rationally anticipating the aggregate outcomes of such rational individual behavior.

Few of us believe there will be another massive baby boom of the 1947-1965 variety (although I think I'm right in saying that no demographers anticipated that either), in which total fertility rates would rise from about 1.8 to over 3.5. But how many of us could conceive of total fertility rising to 2.0 or 2.2, or declining to 1.4? And how constrained are our expectations by experiences of only 10-15 years?

"Birth Dearth" Options

If it is decided, after informed and nonalarmist scrutiny, that a national birth dearth is something to be concerned about, Western nations appear to have four policy responses:

1. Limit access to fertility control methods. Such policies have been adopted in Eastern Europe, especially in Romania. While such measures may have significant effects upon fertility, their costs are high in terms of infringement upon personal freedom and increases in unwanted fertility and its unattractive consequences. In the liberal democracies of the West, it is possible that access to abortion may be restricted, but draconian limits upon access to all effective fertility control measures seem politically unlikely.

2. Encourage higher fertility with economic incentives. These include positive incentives favoring additional births (such as birth bonuses, child allowances, preferential housing for large families, tax incentives, early retirement, etc.); and negative incentives aimed at diminishing existing opportunity costs or otherwise discouraging additional childbearing (these benign measures include provision of cheap child care services; harsh policies might include measures to deter female labor force participation).

Population growth was described by the U.S. as "a neutral phenomenon . . . not necessarily good or ill"

One interesting example of an economic incentive policy that combines both positive and negative aspects has been proposed in France: the payment of a so-called "maternal wage" to mothers who stay at home to raise children, calculated at one-quarter the prevailing wage for employed women.

3. Increase immigration. This seems obvious, until one remembers that the fear of population decline is not about the number of warm bodies, but about numbers defined as part of the national or other grouping of interest.

In this respect, large immigration in a setting of low or negative natural increase can lead to very rapid transformations in the socially defined composition of a population.

Historically, such rapid changes have almost invariably resulted in passionate public opposition, driven by fears that seem to be more powerful even than those about population decline. In contrast, slower rates of change can be accompanied by gradual changes in the relevant social definitions, thereby facilitating public acceptance of immigration.

Based upon past experience, large-scale immigration into a setting of low or negative natural increase seems unlikely to be politically viable unless the immigrant streams are socially perceived as "part of" or "similar to" the indigenous population. Examples include the postwar migrations of East Germans to West Germany or of Italians to Argentina.

4. Live with it. Measures can be taken to help a society adapt to declining and aging populations over the long term. In the past, these have included:

- modifying the terms of social security provision, e.g., by raising the legal age of retirement for pension purposes, or by subjecting the social security benefits of well-off retirees to income taxation. (While the potential power of relatively modest changes in social security provisions is quite surprising, the history of social security since World War II mostly has been one of liberalizing benefits and of reductions in the legal age of retirement.)
- converting surplus age-related public facilities such as schools to other social purposes, and designing new facilities so they can similarly be converted when changing demographic profiles require.

Perhaps the best we can say about these measures is that there has not yet been sufficient experience with contraction (as compared to expansion) of such facilities, and hence there is much to be learned before sensible advice based upon past experience can be offered.

A Word About Rhetoric

A final prediction: The subject of demographic change has already suffered through a decade-long bout of exaggerated rhetoric, in which some extreme proponents attributed much of the world's ills to what was called the "population bomb," the "population crisis," and so on. Although rapid population growth is a legitimate matter for reasoned concern and action, these alarmist doomsday

Continued on next page

Demographers Page

Continued from preceding page

scenarios were frequently criticized by leading demographers as exaggerated.

Coming next will be alarmist talk and writing about the profound dangers of population decline. Much of this will come from politicians and ideologues of the Right and Left, and will be permeated by highly emotional language analogous to that used by the population-explosion alarmists of the 1960s and 1970s.

I am not attempting for a moment to minimize legitimate concerns about sustained low fertility. Sustained and substantial population declines, should they emerge, deserve serious scholarly attention. They are potentially as significant in policy terms as are the sustained rapid demographic growth rates of some Third World countries. (Ironically enough, population growth was described as "of itself, a neutral phenomenon . . . not necessarily good or ill" in the policy statement propounded by the U.S. delegation to the 1984 International Conference on Population in Mexico City.)

Nevertheless, we should expect to hear as much inflated rhetoric about low fertility as we have already heard about high fertility. For a taste of what may lie before us, consider the following statement made in 1984 by Prime Minister Chirac, leading candidate for the French presidency in the upcoming 1988 election:

> Two dangers stalk French society: social democratization and a demographic slump. . . . If you look at Europe and then at other continents, the comparison is terrifying. In demographic terms, Europe is vanishing. Twenty years or so from now, our countries will be empty, and no matter what our technological strength, we shall be incapable of putting it to use.

Such language is almost exactly that used by the depopulation alarmists of the 1930s. It is not based in factual evidence and fails to recognize both the slowness and momentum of demographic change, and our continuing incapacity to predict future changes in fertility.

Any summary advice I could offer was put far more lucidly by Mark Twain. In Twain's words: "Get your facts straight first, and then you can distort them as much as you wish." ☐

SURVEY REPORT

Brazil

Brazil's fertility is steadily declining, and may be falling even faster than many had assumed, according to preliminary results of the 1986 National Survey of Maternal/Child Health and Family Planning, the first such survey on a national level.

Specialists are surprised by the total fertility rate reported by all Brazilian women aged 15 to 44: 3.1 lifetime births per woman, a decline of about 1 child per family just since 1980. Traditionally, the government has been pronatalist, viewing population increase as a spur to further economic growth and development of its sparsely populated frontier areas. Yet even without any real government-supported family planning effort, fertility has declined. However, with death rates also falling, the population continued to grow over 2 percent annually. In 1987, Brazil, with about the same land area as the U.S., has just over 140 million inhabitants.

Regional surveys conducted from 1978 to 1982 revealed that contraceptive use for married women 15-44 years old ranged from 66 percent in Sao Paulo, Brazil's economic hub, to only 37 percent in the less developed Northeastern region. The 1986 survey gives a national rate for the first time: 65 percent of the currently married women (including those in consensual unions) used contraceptives.

While regional differences persisted, use rates have increased, and the relative gap between Sao Paulo and the Northeast has narrowed. These two regions showed 1986 contraceptive use rates of 73 and 53 percent, respectively. At the national level, contraceptive use was higher in urban than rural areas, and among more educated women.

About 80 percent of the women using family planning had either been sterilized (42 percent) or used oral contraceptives (38 percent). Another 14 percent of users were about equally divided between the use of natural family planning and withdrawal, while 6 percent chose another method.

Over 90 percent of oral contraceptive and condom users obtained them from private pharmacies, underscoring the minimal role of organized family planning programs in supplying contraceptives. However, over one-half of the sterilized women had their operations in government-subsidized hospitals. In the Northeast, almost 40 percent of the contraceptors relied on a publicly supported source of family planning. Although a small percentage of all Brazilian women rely on subsidized family planning, they are from the poorest regions.

Despite the very high use of contraceptives, 45 percent of the Brazilian women who had been pregnant in the past five years reported that their last pregnancy had been mistimed or unwanted. But increases in contraceptive use may improve this percentage: in 1986, 82 percent of the women who wanted no more children and 72 percent of those who wanted to delay their next pregnancy were practicing contraception.

The 1986 survey also collected important data on prenatal health care, breastfeeding, and immunization. Women from Rio de Janeiro, Sao Paulo, and other more prosperous regions were more likely to have had prenatal care and to have had children immunized, but they were less likely to be breastfeeding their babies. For Brazil as a whole, 74 percent of the women with a birth since 1981 had received prenatal care, and about 80 percent gave birth in hospital or clinic.

—M.K.

Military

Continued from page 4

conflicts producing 1,000 deaths or more) have taken place, with a total loss of life of over 18 million.

Out of 120 armed conflicts, only one – the Hungarian revolution of 1956 – took place in an MDC. The other 119 occurred in the LDCs, although in a number of cases MDCs were deeply involved.

The more developed nations make up 24 percent of global population. How these countries have generally managed to avoid war on their soil during the past four decades is open to many interpretations. But a persuasive reason might be that in the nuclear age one war is perceived as more than enough.

The 10 most lethal conflicts since 1945:

Conflict	No. deaths
Korean war (1950-1953)	2,889,000
Peak of Indochina War (1965-1975)	2,058,000
Cambodia	2,000,000
Nigeria civil war (1967-1970)	2,000,000
Bangladesh (1971) Pakistani attack on Bengalis	1,500,000
China (1946-1951) civil war	1,000,000
China (1951-1952) govt executes landlords	1,000,000
India (1946-1948) Hindus vs. Muslims	800,000
Vietnam (1945-1954) war of independence	600,000
Iran-Iraq war (1982-1986)	600,000

Source: Sivard.
Figures include war-caused famine.

The two largest wars – in Korea and Indochina – are well known because of the part they played in the Cold War between the West and the Soviet Union. The great majority of post-World War II conflicts have no such claim to fame. They have not been geopolitically "important" – only tragic and deadly, like all war.

– A.H.

SOFTWHERE

Population Pyramids is a demographic graphics program written for the IBM PC. Developed at the University of Wisconsin – Madison, it is menu driven and consists of two parts. The first part is an educational module with six subparts, explaining the dynamics of how age and sex affect a population.

The second part of the program allows the user to create his or her own pyramids. (Each pyramid is limited to no more than 21 age intervals.) Data are entered directly into the program by the user and can be saved and recalled later. Printing is done by a screen dump (Crtl-PrtSC), printers with IBM graphics emulation are recommended.

The program is not capable of multiple overlays but can be very useful for analyzing the age-sex structure of a population at a glance – in the case of Sun City, Ariz., an astonished glance (see Speaking Graphically, page 2).

Pyramids was created by Bob Israel, Doris Slesinger, Peter Ubomba-Jaswa, and Karl Taeuber. For further information and prices, contact: Applied Population Laboratory and Center for Demography and Ecology, University of Wisconsin, 1180 Drive, Madison, Wis. 53706.

POPULATION UPDATE

Estimated United States Population:

As of October 1, 1986	242,115,000
As of October 1, 1985	239,929,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 996.

Estimated World Population:

As of March 1987	4,998,000,000
Annual growth	83,000,000

Estimated by extrapolation of the mid-1986 population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: October 1986

Item	12 months ending with October					
	Number		Rate			
	1986	1985	1986	1985	1984	1983
Live births	3,718,000	3,752,000	15.5	15.8	15.6	15.7
Deaths	2,097,000	2,087,000	8.7	8.8	8.6	8.6
Natural increase	1,621,000	1,665,000	6.8	7.0	7.0	7.1
Marriages	2,390,000	2,438,000	9.9	10.2	10.5	10.5
Divorces	1,179,000	1,187,000	4.9	5.0	4.9	5.1
Infant deaths	39,200	39,300	10.6	10.5	10.6	11.0
Population base (in millions)			240.6	237.9	235.8	233.4

Note: Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source: *Monthly Vital Statistics Report* (Vol. 35, No. 10) from the National Center for Health Statistics.

Globescope

Aiming to increase public understanding of long-term global trends, Globescope '87 meets in Cleveland, Ohio, April 29-May 2, 1987.

The conference, a project of the Global Tomorrow Coalition, seeks to inform concerned citizens about the state of the global environment, examine the interrelationships between long-term trends involving population, resources, the environment, and development and help participants become active in shaping the world's future.

Globescope accomplishes this by bringing together people of diverse backgrounds from the U.S. and other countries. At the four-day conference, they will participate in an exchange of information, ideas, and action plans.

This is the fourth Globescope event sponsored by the Global Tomorrow Coalition, a nonprofit alliance of over 100 independent, nongovernmental organizations representing more than 6 million members. Global Tomorrow's stated goal is to help the world achieve a sustainable future.

For registration information, contact: Globescope '87, Global Tomorrow Coalition, 1325 G St. N.W., Washington, D.C. 20005 (202) 628-4016.

Europe

Continued from page 5

to "relink fertility behavior and economic security in old age" by earmarking part of an individual worker's social security taxes to go directly to his or her own live parents as an extra pension entitlement. Van de Kaa admits this idea has little chance of being adopted but adds: "In demographic matters, the unexpected sometimes happens."

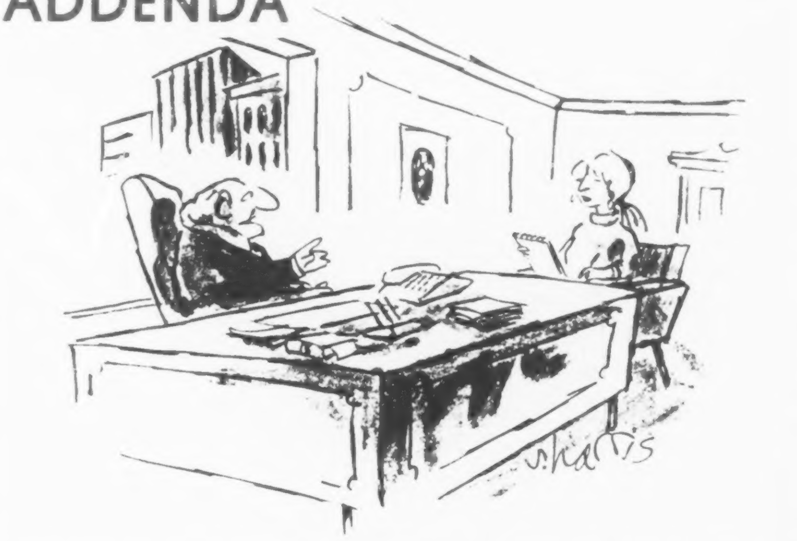
— *JvdT*

TAKE A NUMBER

Bevölkerungsentwicklung: or population situation, for those taken aback by German nouns. A recent edition of the German statistical monthly, *Wirtschaft und Statistik*, gives some interesting insights into recent West German demography. For one, the fertility of the non-German population, while higher than that of native Germans, is a good deal lower than one might think. Germans had a total fertility rate (TFR) of 1.36 lifetime births per woman in 1976 while the non-German TFR stood at 2.57. But by 1984, when the TFR for native Germans stood at 1.26, the non-German TFR had dropped to 1.69, a remarkably quick convergence. The report notes that births are classified by the mother's ethnic origins and that there is probably some undercount in the births to non-German women because some women return to their home country to have their babies.

Here and there — Iceland reported a statistical anomaly for 1985: a sex ratio at birth below 100. In 1985, there were 1,904 male and 1,952 female births for a sex ratio of 97.5 male births per 100 female births. Since Iceland's population produces a relatively small number of annual births, such fluctuation is obviously possible. Still, such a find tends to jolt us a bit when we are out hunting and gathering data — due to falling emigration, the United Kingdom has for now become a country of immigration on balance, the drop in emigration is largely due to decreased numbers of U.K. citizens leaving for Old Commonwealth countries (Australia, Canada, and New Zealand) — the Census Bureau reported that the U.S.'s preschool population (under age 5) is at its highest level since 1967 and increased by 1.7 million from 1980 to 1985. Utah has the highest proportion with 11.8 percent of the population — Colombia reports from its 1985 Census that the population growth rate has slowed to 1.8 percent per year in the intercensal period 1973-1985, this rate is considerably lower than that estimated by others.

ADDENDA



"Type that up, make ten thousand copies, and send them to all the important people in the world."

Drawing by S. Harris, ©1985 The New Yorker Magazine, Inc.

PRB members will receive their copies of van de Kaa's report, "Europe's Second Demographic Transition," in a special mailing later in March. Other copies of the *Bulletin* (Vol. 42, No. 1) may be ordered from the Population Reference Bureau, Inc., Circulation Dept., P.O. Box 96152, Washington, D.C. 20090-6152, with checks payable to PRB. Prices are: $4.00 per single copy, 2-10 copies, $3.00 each, 11-50 copies, $2.50 each, over 50, $2.00 each. Orders for $50 or less must be prepaid and include $1.00 for postage and handling.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

ATLAS OF AMERICAN WOMEN,

by Barbara Gimlas Shortridge. New York: Macmillan, 1986. 164 pages. $85.00. ISBN 0-02-929120-8.

Women outnumber men in the U.S. by 120,446,000 to 115,236,000 as of 1984. Women who work full-time in rural Hawaii make 70 cents for every dollar earned by males. In Wyoming, at the other end of the spectrum, their earnings are 50 cents. Some 4.4 percent of the female population of Maryland are separated (the national high), compared to the 0.9 percent of females in North Dakota (the low).

That's just a sampling of the lively information provided by this attractive volume, which depicts American women in text and graphics according to a wide variety of measures. Topics range from demographics, labor force participation, earnings and income, occupation, and education to sports, relationships, pregnancy, health, crime, and politics.

Along with many virtues are a number of minor flaws and inconsistencies (for example, a number of typographical errors and an inconsistent definition of "brains"– itself a curious category title – which in one table is women of 15 years or over who have four or more years of college; but in a map, women 25 years and over with five or more years of college). Consequently, the user should read closely and compare captions and definitions before making comparisons between chapters.

Although none of the information is exactly new (the data are predominantly from 1980, reflecting the fact that the majority of comparative state statistics can be found only in decennial censuses), this compilation and its insights provide a most useful resource for assessing American women. For example, Map 7.11, which depicts the geographic distribution of the feminization of poverty, is accompanied by reasoned discussion that questions the accuracy of this "convenient catchword" and reviews the basis for defining poverty level status and its implications for state variations across the country.

A total of 128 shaded national maps illustrate the narrative, which is also supplemented by figures and tables. Because this work was compiled primarily from census and vital statistics data, it makes a fine illustrative and geographic companion to *Women in Transition* (reviewed in *PT*, November 1986) which uses similar types of data to review the demographic and social changes affecting U.S. women during the past 20 years.

Whatever flaws it may have, the uniqueness and overall quality of this Atlas earn it a place within any collection of the most recent analyses of American women.

-- Denise Molajo

TEENAGE PREGNANCY IN INDUSTRIALIZED COUNTRIES, by

Elise F. Jones et al. New Haven, Conn.: Yale University Press, 1986. 310 pages. $30.00. ISBN 0-300-03705-8.

When the startling results of the Alan Guttmacher study on teenage pregnancy were made public in March 1985, they were widely publicized and commented on in the media. Now this volume, documenting the methodology and analysis of data from the U.S. and 36 other more developed countries (MDCs) has finally been published. It shows in more detail why teenagers from the most populous country in the Western industrialized world manage to get pregnant more frequently than those in most other MDCs, and at an increasing rate.

The international perspective not only teaches us something about the other 36 countries discussed (especially the six in-depth country case studies), but compels American policymakers and social commentators to revise some of the conventional wisdom about the causes of teen pregnancy.

One myth exposed by the study is that U.S. teenage pregnancy is largely a "black" problem. The study's comparisons show that while birth rates among black teenagers are much higher than among whites, U.S. white teenagers have among the highest rates of the countries studied. Why do U.S. teens become pregnant (and have abortions) more than Europeans and other MDC teenagers? Not because they are more sexually active than the others, but because the Americans use birth control less often.

The aim of the authors was to reveal the social, economic, or demographic variables which explain the differences in teen sexual behavior among industrialized countries. Quantifying variables such as social attitudes about sex is a difficult task, and one of the values of the book is the discussion of how these and other measures were developed.

The primary value of the study, however, lies in the policy implications of the findings. Based on the experiences of other countries, openness about sex and better availability of contraceptives to young people seem generally the most direct route to lowering teenage pregnancy.

– Mary Kent

Books Received

AFRICA SOUTH OF THE SAHARA 1987 (16th ed.), by Europa Publications Ltd. London: Europa (distributed in U.S. by Gale Research, Detroit, Mich.), 1986. 1,141 pages. $145.00.

CHINA ECONOMIC HANDBOOK (1st ed.), edited by Karsten Grummitt. London: Euromonitor (distributed in U.S. by Gale Research, Detroit, Mich.), 1986. 246 pages. $80.00.

MEDICINE & AMERICAN GROWTH 1800-1860 by James H. Cassedy. Madison, Wis.: University of Wisconsin Press, 1986. 298 pages.

REPORT OF THE SECRETARY'S TASK FORCE ON BLACK AND MINORITY HEALTH by U.S. Dept. of Health and Human Services. Washington, D.C.: HHS, 1986.
  Vol III. *Cancer*. 272 pages.
  Vol VIII. *Hispanic Health Inventory Survey*. 397 pages.

RESTORING THE EARTH: How Americans Are Working to Renew Our Damaged Environment, by John J. Berger. New York: Knopf, 1986. 241 pages. $18.95.

STATISTICAL YEARBOOK, 1983/84, 34th issue, by Dept. of International Economic and Social Affairs, Statistical Office. New York: United Nations, 1986. 1,137 pages. $70.00.

SUSTAINABLE NUTRITION SECURITY FOR AFRICA: Lessons from India, by M. S. Swaminathan. San Francisco, Calif.: The Hunger Project, 1986. 35 pages. (The Hunger Project Papers, No. 5, October 1986).

SPOTLIGHT

HAITI

Population (mid-1986 est.): 5.9 million
Land area: 10,714 sq. miles
Births per 1,000 pop.: 36
Deaths per 1,000 pop.: 13
Rate of natural increase: 2.3 percent
Total fertility rate: 5.5
Infant mortality rate: 108 infant deaths per 1,000 live births
Life expectancy at birth: 53 years
GNP per capita (1983 est.): US$290
Capital: Port-au-Prince

by Wendy Patriquin

Among the most economically disadvantaged countries in the world, and certainly the poorest in the Western Hemisphere, the Republic of Haiti's existence has been characterized by struggle.

The country occupies the western third of the Caribbean island of Hispaniola. While the terrain is predominantly mountainous, the climate is warm and semiarid, and only about one-third of the land is arable. (Haiti is an Indian term meaning "Land of Mountains.")

French is the official language, though it is the mother tongue of only about 10 percent of the population; the majority of Haitians speak Creole (a mixture of African dialects, French, Spanish, and a little English and Portuguese). Haiti is the only major Latin American nation whose cultural ancestry is principally French.

It is also the only Latin American republic in which the majority of the people (approximately 95 percent) are of African descent. This group constitutes the working class of Haitians, while the small aristocracy is composed of a mixture of French and African ancestry. Haiti's ethnic composition is the major reason for its unfriendly relations with its neighbor, the Dominican Republic, where one-quarter of the population is white and two-thirds is of mixed Spanish and black descent. In addition, GNP per capita in the Dominican Republic is about three times that of Haiti.

One of the richest French colonies in the 17th century, Haiti was the second nation in the hemisphere to gain independence (1804); the first was the U.S. Since then, Haiti has been ruled by a series of unstable regimes, except for a period of U.S. occupation from 1915 to 1934. Dr. Francois Duvalier was elected president in 1957, and in 1964, made himself "President for Life." When he died in 1971, his son Jean-Claude took power.

Under the reign of the Duvaliers, Haiti has experienced severe poverty, tension, and repression. One result of this was an exodus of some 20,000 undocumented immigrants to the U.S. in 1980. This continued until the U.S. Immigration and Naturalization Service (INS) was given the authority to intercept boats transporting immigrants. Ultimately, Haiti's poverty and oppression became unendurable, and in February 1986, after much political unrest and rioting, the government fell and ex-President for Life Jean-Claude Duvalier fled to France.

Most Haitians live in great poverty. Because of their race, culture, and lack of skills, they are not welcome to seek work in other Latin American countries.

Industry employs only about 7 percent of the labor force and contributes about 20 percent of the GDP. Companies, mostly American, are attracted to Haiti because of the availability of cheap labor and the lack of unions to protect workers. Agriculture, including forestry and fishing, employs more than 65 percent of the labor force. The chief crops for domestic consumption are beans, sugar cane, corn, bananas, and rice. Coffee and sugar each account for 10 percent of Haitian exports. Haiti has some of the richest bauxite deposits in the West Indies; however, they are underexploited. Tourism is a major source of foreign exchange and an important sector of the economy.

Although Haiti's rate of natural increase is 2.3 percent, emigration has been significant in recent years, and there is currently no policy to modify population growth. There is, however, a policy to decrease fertility, mainly for the purpose of strengthening maternal and child health. To this end there is direct government support for providing family planning commodities, information, and education. In an effort to stem urban growth, the government is encouraging the development of the agricultural sector and decentralizing the industrial infrastructure. Moderate emigration is encouraged, as remittances to families back home from workers abroad contribute a significant amount to Haitian coffers.

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POPULATION TODAY

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UNICEF Bernard P. Wolff

5 billion and growing.

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FROM THE EDITOR'S DESK

Besides being a spoken phrase that only Carl Sagan can do justice to, "5 billion" gives pause for thought about the world's population, its present and its ever-expanding future. Is 5 billion a little or a lot?

Compared with the past, even recent past, it seems like a lot; but comparisons with history are always relative, and doubtless the good folk of the 21st century will gaze back at us in the same way we wax nostalgic about 2½ billion – Boy, weren't things slow-paced, gracious, and bucolic back then. (Etc., etc.)

* * *

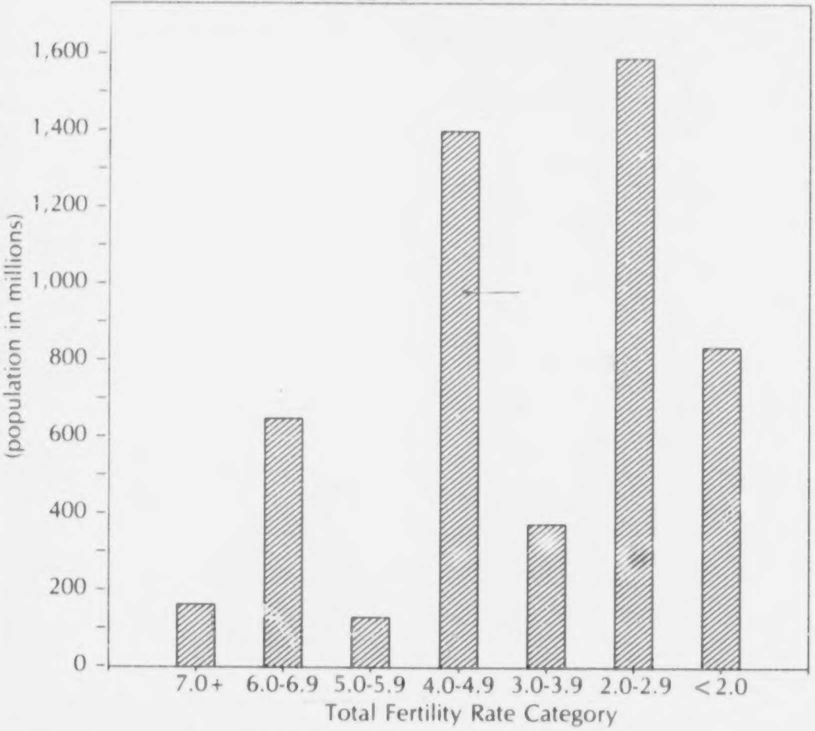
About the present status of world population, the bar graph appearing below in "Speaking Graphically" groups the world's population by total fertility rate (TFR).

Be a little careful about interpreting those curious cusps at 3.0-3.9 and 5.0-5.9 children per woman. We had thought they were signs of some plateau effect. But Carl Haub pointed out to us that with China in the 2.0-2.9 bar, India in the 4.0-4.9 bar, more developed countries under 2.0, and Bangladesh and other populous countries out at 6.0 and beyond, everyone is accounted for (except maybe eight people). Hence the stubby bars at 3.0 and 5.0.

– Art Haupt

SPEAKING GRAPHICALLY

Total Fertility Rate Category
by Aggregate Population Size



Source: 1987 World Population Data Sheet.
Note: Actually, it's national TFRs being shown here – all people in a given country are all lumped in a particular TFR level whether they like it or not – but it gives you some idea of where world fertility stands.

POPULATION TODAY

VOL. 15, NO. 4 **April 1987**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States, printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address, please allow eight weeks for change.
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ISSN 0749-2448

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World at The Halfway Mark

Five billion people – that's the world of 1987, as shown on PRB's new *World Population Data Sheet*, published this month.

The *Data Sheet* shows a mid-year global population of 5,026,000,000. While no one can state the exact day the cosmic population odometer rolled up 5 billion, indications from censuses and estimates for over 200 countries pored over by PRB demographers Carl Haub and Mary M. Kent indicate that sometime in the past few months the cozy, familiar world of 4 billion-plus departed forever.

The "4-billion world," which arrived in 1974, was itself around for only 13 years. And the 5-billion one will likely grow to 6 billion before 2000 – perhaps in 1998, say Haub and Kent. The UN's "medium" projections indicate that world population could stabilize at about 10 billion toward the end of the 21st century. (The 20th century began with a world of about 1.6 billion people.)

"If these projections prove accurate," the *Data Sheet* authors point out, "world population has now reached the halfway point in its historical growth" – from humanity's beginnings to its currently projected final stable population. Haub and Kent are at pains to point out that projections rest upon assumptions. Women today all around the world have average 3.6 children each during their lifetimes. The 10-billion projection assumes that by 2035, this figure will fall to about 2 children per woman worldwide.

"Yet," the authors add, "what if 21st-century women have fewer, or more, than this number of children?" Then the level at which global population stabilizes could vary greatly. Take Africa, which currently has a population of about 600 million. If African women average about 2 children each by 2030 – about replacement level – Africa's projected stabilized population would be 1.4 billion. Yet if replacement level were delayed only 35 years – to 2065 – projections show that it would ultimately stabilize at 4.4 billion – over three times as large.

Fertility Rise for China

The new *Data Sheet* reflects late-breaking news concerning China's birth rate. According to a 1986 sample survey taken in 29 provinces, autonomous regions, and municipalities, the national birth rate had risen to 21 per 1,000 population. The survey results were announced in late February 1987 by the State Statistical Bureau. They are significantly above other estimates for rates during the 1980s (e.g., the birth rate of 18, given on PRB's 1986 *Data Sheet*). They affect not only China's statistics, but, because of China's enormous influence on global numbers – it contains 21 percent of the world's population – they also serve to raise the world's totals.

China's birth rate surge, while partly due to the concentration of women in the childbearing ages – "baby boomers" born in more fertile times and now themselves of childbearing age – raises questions about the present and future course of China's strict family planning program, which has been promoting "one child" since 1979. Apparent slight relaxation in the stringency of this program has been noted by some foreign observers, but how widespread exemptions (or evasions) are is hard to say.

A Look at the Numbers

Other *Data Sheet* highlights:

The world's total fertility rate (TFR) stands at 3.6 children per woman. Developing countries, as always, continue to have higher TFRs (average of 4.1) than developed (2.0). The *developed* country with the highest TFR (2.5) is Ireland (see page 12).

Only half the population of the less developed world (excluding China) has access to safe water. A special column on this year's *Data Sheet* displays water data for less developed countries, as published by UNICEF. Only 51 percent of the population of the less developed nations surveyed had access to this basic requirement of healthy life.

India breaks the 800-million barrier. The world's second most populous country now stands at 800.3 million. India now adds about 16.8 million people a year to its population, as compared to significantly larger China. China's much lower fertility means, however, that it increases by 13.9 million a year.

Energy consumption inches upward. Another *Data Sheet* column shows energy use by country and how it has risen/fallen since 1970. Overall, despite development, it has risen only 6 percent per capita during the last 17 years; because of economic factors and greater conservation, the U.S.'s per capita figure went down 12 percent during this period.

Continued on page 9

Amnesty Day Is Coming

The U.S. is getting ready for a new age in immigration, but the outlines of that age remain obscure.

The historic Immigration Reform and Control Act (IRCA) was signed into law Nov. 6, 1986, by President Reagan. In mid-1987, the provisions of the law will go into effect: Starting May 5, the Immigration and Naturalization Service (INS) begins accepting applications for amnesty from undocumented aliens who can prove they have lived continuously in the U.S. since January 1982. Starting June 1, U.S. employers will be required to ask job applicants to affirm their legal resident status and to ask newly hired employees for documentation of their status.

In the 1980s, the total U.S. population of illegals has been guesstimated at anywhere from 2 to 12 million. Political reaction to the massive migration flow, largely from Latin America, ranged from proposals to seal off the U.S.'s southern borders because these migrants were such a national detriment, to proposals (from no less an opinion-maker than the *Wall Street Journal*) to open the borders completely because new population additions ultimately represent a national benefit. The first Simpson-Mazzoli immigration bill passed the Senate in 1982 only to die in the House, beginning several years of Congressional wrestling with the issue and with competing vested interests. It finally passed both chambers in November 1986.

During the present preimplementation period, uncertainty reigns about the effects of the watershed law (already acronym-ized as IRCA, or "Irk-cah").

Watching and Waiting

Regardless of the bill's provisions, however, its very existence seems to have had a marked chilling effect on illegal immigrants. INS apprehensions of illegals along the Mexico-U.S. border have dropped by 25 percent since the end of 1986. (The law also provides for beefed-up border security and surveillance, though this money has yet to materialize.) News reports estimate "thousands" of illegal aliens have been laid off by employers anxious to avoid legal culpability under the new law. And in early 1987 some 6,000 illegals claiming refugee status were turned away at the Canadian border when they tried to exit the U.S., fearing the effects of the immigration law. Many other illegal aliens residing in the U.S. seem to be watching and waiting anxiously to see what changes will occur in their lives.

In January 1987, the INS published the regulations by which it will implement the reform law. Starting in June, all new job applicants in the U.S. must complete an "I-9" form, giving biographical information and affirming their legal residency status. Within 24 hours after being hired, new employees will have to show their new employer proof of their legal residency status.

Employers must be convinced in good faith of the documents' authenticity, but are not required to be any sort of document expert. They must, however, make a record that they performed their legal-status check, and keep each employee's I-9 form on file for three years.

Still unsettled is the problem of discrimination. Hispanics have expressed concern that they will be singled out for scrutiny and firing because of their ethnic group. Employers are worried that their not hiring someone because his or her identification *looks* suspicious could make them vulnerable to discrimination suits.

Knowingly hiring illegals is of course a different matter. Fines range from $250 to $10,000 in civil penalties to prison and criminal penalties for persistent offenders. (In any case, the INS expects to issue only warnings for a first offense during the initial period May 1987-May 1988.)

The $185 Amnesty

Illegal aliens likewise have one year (May 1987-May 1988) to apply for legal residency status. When Amnesty Day comes, 100 INS offices specifically set up to handle the legalization process will open their doors nationwide. Acknowledging that illegals may have work hard to avoid leaving any paper trail, much less keeping exact records of their U.S. residency since 1982, INS will accept such proofs as a testimonial letter from a utility company (that it has been serving this particular customer), or from churches or schools (that they know this individual).

The amnesty application fee is $185, with a $420 package deal for families. To appeal a rejected application costs another $50. This is in line with the Administration's view that the legalization process be self-supporting. Some Congressmen have complained that Congress did not expressly intend for the costs of the program to be borne this way. (On the other hand, INS officials point out that $185 or so is much less than the hundreds or thousands extorted by border "coyotes" who smuggle illegals into the U.S.)

The INS takes *great* pains to announce that it will not detain anyone who applies to it for legal status and is then rejected. Whether this pledge that INS's right hand (enforce-

Continued on next page

Immigration and Naturalization Service

INS agents apprehend illegal migrants at Mexico-U.S. border.

ment) will not know what its left (legalization) is doing is open to question.

Amnesty Day and After

What will happen when May 5 comes?

There could be enormous effects on the U.S. population and on the prosperity and structure of the economy – or the law could go into effect without anyone being able to tell the difference.

For openers, no one knows how many illegals will come forward – numbers being bandied about are 1 to 3.5 million.

If illegals become legal, a whole national underclass could disappear, with reverberations for some business sectors that have grown accustomed to exploiting cheap, uncomplaining labor.

Illegals tend to concentrate in certain geographic areas, such as California and New York, and whatever change they undergo could have drastic local effects.

Central American migrants and others are thought to be more alarmed about the coming crackdown than illegal Mexican migrants, who have for generations been inured to living in a shadow world in the U.S.

Illegals could overcome their notorious shyness of government authority – or they could lie low and obtain forged documentation. The bottom line in either alternative, after all, is to be able to present documentation of legal status to employers, and continue earning a living.

So far, no national documentation standard exists (under the law, the President has the option of implementing some sort of identification system – not necessarily ID documents – if the need becomes apparent). It's possible that within months after Amnesty Day, enforcement could be stymied by a blizzard of false Social Security cards and phony driver's licenses complete with photo.

Finally, the seriousness of the enforcement process itself will be put to the test. It's not often remembered that a dozen states already have sanctions against employers hiring illegal aliens. Yet no employer has ever been convicted of this crime. – A.H.

Rafael Salas 1928-1987

Rafael Salas, the Executive Director of the UN Fund for Population Activities (UNFPA), died March 4 while on a trip to Washington. He was 58.

Head of UNFPA since it became operational in 1969, Salas built the organization from a small staff of five to a large, multilateral institution assisting thousands of population projects in developing countries and territories throughout the world.

Salas was born in the Philippines and was educated there and in the United States, receiving his bachelor's and law degrees from the University of the Philippines in 1953 and a master's degree in public administration from Harvard University in 1955.

Thereafter he held several posts in academe, government, and industry. At the University of the Philippines he lectured in law and economics, later becoming assistant vice-president and a member of the board of regents. In 1955 he was named executive director of the Philippine National Economic Council, with Cabinet rank, and from 1963 to 1966 worked as general manager of the *Manila Chronicle*.

In 1966 he became Executive Secretary of the Philippine Republic, holding the post for three years. During this time Salas also served as Action Officer of the Philippine Rice and Corn Sufficiency Program, directing the "Green Revolution" which raised rice production to self-supporting levels.

A respected authority in the field of family planning, Salas traveled and worked indefatigably with organizations and governments to seek solutions to problems of overpopulation. In 1984 he presided as Secretary General of the International Population Conference held in Mexico City.

Salas was the author of several books, including *People: An International Choice* (1976) and *International Population Assistance: The First Decade* (1979), as well as numerous newspaper and magazine articles on government management and population issues.

Growth Concern in Papua New Guinea

Papua New Guinea is becoming concerned about its population size.

The country's Health Ministry emphasizes that no policy would attempt to limit individuals' choices. But "high population growth rates place an extra burden on the lives of individuals and the nation. . . . A coherent, well thought-out population policy is essential for long-term national planning."

Located in the South Pacific, Papua New Guinea, with a population of 3.4 million, is Oceania's second most populous country, after Australia. The government projects that it could grow to 4.6-6.6 million by 2000. Rural development is also seen as necessary to even population distribution, but with 71 percent nonarable land, conflicts over traditional land ownership seem likely to escalate.

DEMOGRAPHER'S PAGE

World Data Go Down For the Count

by Carl Haub

The majority of the figures given on the *World Population Data Sheet* are rates or percentages. X deaths per 1,000 population. X percent of the population "urban." These numbers are obviously important. Not only do rates have a high interest factor (who has the "highest" birth rate? the "lowest?"), but as statistics students have been tirelessly taught, they are indispensable for understanding the processes underlying mere raw data.

For example, rates give the frequency at which events occur to a given "population at risk." If we take all infants born in a year as a population at risk, then the infant mortality rate tells us something about a given infant's chance of living through the first year of life. Percentages summarize the proportion of a population in a particular subgroup. When Poland is called 60-percent urban, that means, naturally enough, that six of 10 Poles live in cities when all is said and done.

And yet rates do not directly tell us one important basic fact: how *many?* For example, how many infants died in a year in one country compared to another? As we have done in past years, we offer a table on the opposite page of a number of vital events for the world's regions and 10 largest countries. These data help put some of the rates into perspective and put problems facing many developing countries in somewhat different, perhaps starker, terms.

For example, both Cameroon and India have about the same infant mortality rate, about 100 infant deaths per 1,000 live births in a year. In Cameroon, about 45,000 infants die each year, but in India 2.6 million do. Of course, India has a much larger population, but it is of no less importance to look at the numbers which lie behind the rates.

It is one thing to know, for example, that Iran has a crude birth rate of about 45 per 1,000 population, but another to know that there are about 2.3 million annual births in Iran, about two-thirds the annual number in the U.S. (which has a population five times larger). Or that Nigeria, with a population less than half that of the U.S., has over 600,000 infant deaths per year, compared to the U.S.'s 40,000. It may seem obvious to some that these disparities exist, that higher birth rates (all other things being equal) will result in more infant deaths, but these are, nonetheless, numbers we do not often see.

The numbers, then, portray the human element of demographic statistics, and people are, after all, what demography is meant to be about. Rates, it has often been pointed out, do not show up at the dinner table, nor do they require an education, nor do they seek health care. Numbers spell out the magnitude of a task facing a development planner as few rates can.

> Rates do not tell us one important basic fact: How many?

Burma, for example, is estimated to provide a safe water supply to about one-quarter of its population (and not, therefore, to the remaining three-fourths). It is one thing to have that estimated percentage on hand, but quite another to realize that the "three-fourths" represents 29,000,000 people without access to a fundamental of public health.

Rates can tell the underlying story of where we are headed, population-wise. But then, so can numbers: Between 1987 and 2000, Northern Europe is projected to add about 1 million in population, but Bangladesh's addition in the same time is expected to be some 38 million. Interestingly, India has added 120 million – half the current population of the United States – in the *six* years since its 1981 Census.

Media attention is now focused upon the recently reached 5-billion benchmark. From now until the end of the century, 1.129 billion more people are projected to be added to the world's population; the 6-billion milestone is likely to be reached in slightly more than a decade, perhaps in 1998. Again, there has been much emphasis on the fact that the world population growth rate has declined since the peak of the 1960s. Yet, as we look at the projections to 2020 on the *Data Sheet*, we can see that a population of 8 billion could be expected in that year – assuming that the growth rate continues to decline. Should those projections eventually prove correct, it would mean that the next three billions will each arrive on about an 11- or 12-year schedule. Thus, a declining rate, suggesting slower overall growth, in fact results in large additions to world population. (Had the rate not declined from about 2 percent in the late 1960s to about 1.7 percent today, the numbers added in the future would come at a still faster rate.)

Thus, every so often it is worthwhile to take time to look at the numbers behind the rates. In some ways, this may appear to be a quantification of the obvious, but it is probably healthy to examine the results and implications of the rates and estimates we so freely use. ☐

Data-hungry readers can obtain a diskette version of PRB's *1987 World Population Data Sheet*, offering an even more detailed country-by-country look at the rates and numbers that underlie the printed *Data Sheet*. The format is in Lotus 1-2-3 (ver 1A) for IBM PC and compatibles. Please send a check for $10.00 to cover costs and postage to PRB, attention: David Lamphere.

Carl Haub is the Director of Demographic
Analysis and Public Information at PRB

1987 WORLD POPULATION DATA SHEET

Estimated mid-1987 Population, Annual Components of Change, Projected Population Change 1987 - 2000, and Annual Infant Deaths (by Region and for 10 Largest Countries in Population)

Place (numbers in parentheses are countries' population ranking)	Population mid-1987	Annual births	Annual deaths	Natural increase	Projected population change, 1987-2000	Infant deaths
WORLD	5,026,313,000	139,102,000	52,398,000	86,705,000	1,132,169,000	11,200,000
MORE DEVELOPED	1,190,713,000	17,880,000	11,421,000	6,458,000	71,795,000	285,000
LESS DEVELOPED	3,835,599,300	121,222,000	40,976,000	80,246,000	1,060,375,000	10,915,000
LDC (less China)	2,773,599,000	99,164,000	32,851,000	66,313,000	922,375,000	9,570,000
AFRICA	601,351,000	26,594,000	9,546,000	17,049,000	278,396,000	3,016,000
NORTHERN AFRICA	134,769,000	5,221,000	1,516,000	3,705,000	52,396,000	486,000
WESTERN AFRICA	187,367,000	8,706,000	3,438,000	5,267,000	91,069,000	1,108,000
Nigeria (8)	108,620,000	5,018,000	1,955,000	3,063,000	52,310,000	622,000
EASTERN AFRICA	179,102,000	8,610,000	3,173,000	5,437,000	93,735,000	1,011,000
MIDDLE AFRICA	61,074,000	2,716,000	1,011,000	1,705,000	27,890,000	309,000
SOUTHERN AFRICA	39,039,000	1,341,000	407,000	934,000	13,306,000	102,000
ASIA	2,930,116,000	83,417,000	28,948,000	54,469,000	668,222,000	7,173,000
ASIA (less China)	1,868,116,000	61,359,000	20,824,000	40,536,000	530,222,000	5,827,000
WESTERN ASIA	121,399,000	4,489,000	1,205,000	3,284,000	49,543,000	372,000
SOUTHERN ASIA	1,112,409,000	39,887,000	14,382,000	25,505,000	335,361,000	4,387,000
Bangladesh (9)	107,088,000	4,712,000	1,820,000	2,891,000	37,764,000	660,000
India (2)	800,326,000	26,411,000	9,604,000	16,807,000	212,954,000	2,667,000
Pakistan (10)	104,601,000	4,602,000	1,569,000	3,033,000	40,665,000	575,000
SOUTHEAST ASIA	420,980,000	13,557,000	3,938,000	9,619,000	123,473,000	1,006,000
Indonesia (5)	174,882,000	5,421,000	1,749,000	3,673,000	44,879,000	477,000
EAST ASIA	1,275,328,000	25,484,000	9,422,000	16,062,000	159,845,000	1,408,000
China (1)	1,062,000,000	22,058,000	8,124,000	13,933,000	138,000,000	1,346,000
Japan (7)	122,160,000	1,459,000	773,000	685,000	4,407,000	8,000
NORTH AMERICA	269,746,000	4,163,000	2,308,000	1,855,000	26,277,000	43,000
United States (4)	243,760,000	3,778,000	2,121,000	1,658,000	24,195,000	40,000
LATIN AMERICA	420,510,000	12,472,000	3,199,000	9,273,000	116,245,000	720,000
MIDDLE AMERICA	108,968,000	3,575,000	753,000	2,821,000	33,816,000	191,000
CARIBBEAN	32,191,000	830,000	249,000	581,000	6,192,000	46,000
TROPICAL SOUTH AMERICA	232,375,000	6,991,000	1,835,000	5,156,000	68,064,000	450,000
Brazil (6)	141,459,000	4,046,000	1,118,000	2,928,000	38,028,000	255,000
TEMPERATE SOUTH AMERICA	46,976,000	1,076,000	361,000	715,000	8,173,000	33,000
EUROPE	495,313,000	6,442,000	5,179,000	1,262,000	11,464,000	87,000
NORTHERN EUROPE	83,506,000	1,097,000	953,000	144,000	1,086,000	10,000
WESTERN EUROPE	155,654,000	1,821,000	1,647,000	174,000	−757,000	16,000
EASTERN EUROPE	112,551,000	1,752,000	1,303,000	449,000	5,850,000	32,000
SOUTHERN EUROPE	143,602,000	1,771,000	1,275,000	495,000	5,285,000	29,000
USSR (3)	284,008,000	5,510,000	3,010,000	2,499,000	27,629,000	144,000
OCEANIA	25,268,000	504,000	207,000	297,000	3,937,000	18,000

Source: Unpublished printouts used in preparation of the 1987 World Population Data Sheet. Numbers may not add due to independent rounding.

Call for New PRB Bulletin Editor

The Population Reference Bureau, Inc., is seeking a Senior Editor to edit the *Population Bulletin* (four issues per year) and *Population Trends and Public Policy* reports (three issues per year), beginning June 1987, when the present editor, Jean van der Tak, retires. The position requires detailed editing and rewriting of often academic reports for distribution to a broad audience, dealing with authors and the media, some publications production experience, and a firm knowledge of U.S. and international demographic topics, preferably with academic credentials in the field. Salary is dependent on qualifications.

Applicants should send a curriculum vitae and copies of relevant publications to Dr. Thomas W. Merrick, President, Population Reference Bureau, Inc., 777 14th Street N.W., Suite 800, Washington, D.C. 20005.

Stolnitz Named Visiting Scholar

George J. Stolnitz has been named PRB's Andrew W. Mellon Foundation Visiting Scholar for 1987-88, starting in September 1987.

Stolnitz, professor of economics at Indiana University and formerly Principal Officer for Population and Development at the United Nations, is known particularly for his work in mortality research. During his nine months at PRB in Washington, D.C., he will continue his work on the role of technological change on improving mortality trends in less developed countries.

SURVEY REPORT

Honduras

Honduran women are limiting their fertility through increasing use of contraception, according to the results of a 1984 Maternal-Child Health and Family Planning Survey in that Central American country. Although most Honduran women give birth in the home, often aided by a traditional birth attendant, survey results show that infant and child health has been improving in Honduras during the 1980s.

A majority of Honduras's 4.7 million inhabitants live in rural areas and work in agriculture, underscoring a heavy dependence upon the land. But heavily forested mountains cover two-thirds of the country, limiting the availability of arable land. Rapid population growth has increased the pressure on the land and added to a large class of landless peasants, prompting many to migrate to the cities. Until the 1980s, an average Honduran woman had more than 7 children during her lifetime, contributing to a population growth rate exceeding 3 percent annually.

The 1984 survey of 4,800 women between the ages of 15 and 44 measured a total fertility rate (TFR), or average number of lifetime births per woman, of 5.3 children per woman during 1983-1984. One child less per woman than the 6.4 TFR reported in a 1981 fertility survey (January 1984 *PT*), and just below a 5.5 TFR cited in a 1983 National Demographic Survey, the results document a continuing decline in the birth rate. But high fertility persists in the rural areas. The new survey measured a TFR of 3.4 in Tegucigalpa, Honduras's capital and largest city, compared to 6.9 in the rural areas.

The steady decrease in the birth rate has been accompanied by increased use of contraceptives. In 1984, about 35 percent of the currently married women aged 15 to 44 used contraception, up from 27 percent in 1981. The vast majority of these women chose modern methods. Oral contraceptives and sterilization together account for over 70 percent of the total contraceptive use; only 13 percent of the women using birth control relied on more traditional methods such as rhythm and withdrawal.

Between 1981 and 1984, most of the increase in contraceptive use occurred in the rural areas, and about one-half of the overall increase is attributed to a growth in female sterilization. About 70 percent of the women who chose to be sterilized had the operation in a public or private hospital with support from the Honduran Family Planning Agency, ASHONPLAFA. These trends may be accelerated if the location of childbirth shifts away from home, aided by a birth attendant, to hospitals. Although a majority of babies were born at home between 1979 and 1984, the longer-term trend is toward hospital births. Forty-one percent of the sterilized women reported that they had undergone the operation at the time of the birth of their last child.

Other survey results point toward improvements in maternal and child health and suggest that the infant mortality rate, measured at 71 deaths per 1,000 births for 1981, should continue to decline. A large majority of mothers reported that they had received prenatal care during their last pregnancy and had taken their infants for medical check-ups. Immunization against childhood diseases has improved markedly: Over 80 percent of children under age 5 had been immunized against polio and measles in 1984.

Reversing a previous trend, the number of months a mother breastfed her last child increased between 1981 and 1984 from an average of 15.2 to 16.2 months. The increase was greatest among more educated, urban mothers, women who may have been most affected by promotional campaigns about the nutritional benefits of breastfeeding.

– M.K.

Worldwatch Reports on 1987

"Since 1950 world population has doubled, food production has nearly tripled, and fossil fuel use has more than quadrupled," reports the Worldwatch Institute.

The Institute believes that the earth's habitat can absorb resource demands and contamination only until certain thresholds are reached. After that point, ecological deterioration begins to accelerate.

In the view of its just-published *State of the World 1987*, many of these thresholds have been crossed in recent years, due to development and population growth. The just-published *State of the World* points to the pollution-caused forest damage spreading throughout Europe, as well as the recent report of a large hole in the ozone layer above Antarctica. Population growth exacerbates these pressures, raising issues of ultimate carrying capacity.

The report also comments on the ways population growth relates to national and international conflicts. Growth often causes such rapid national changes as a newly enlarged youthful population; the necessity of large-scale job creation; unprecedented surges of migration; overtaxing of education and other social services; and traumatic urban crowding. All these factors in turn can cause instability and political turmoil. Worldwatch's director Lester Brown writes of "how demographically divided the world has become. The demographic middle ground has almost disappeared.

"All regions are either growing slowly – at 1 percent per year or less – or rapidly – at 2.2 percent or more." He argues that high rates of population growth can retard genuine economic growth to such an extent that the economically fueled demographic transition (from high to low fertility) never takes place – the perfect vicious circle. *–A.H.*

State of the World 1987 is available for $9.95 postpaid from the Worldwatch Institute, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036.

SOFTWHERE

Popshow is a collection of computer programs designed as a teaching aid or as self-instruction in elementary demography. It explains the life table, measures of fertility, the demographic transition, standardization of vital rates, and other population projection methods, as well as various topics of demographic interest. The graphs, pyramids, and country examples are very informative, particularly the example of projections on the demographic transition. Popshow operates on the IBM PC and compatibles but requires a color graphics card. A user's manual is included. *Contact:* George Immerwahr, Dept. of Sociology, DK-40, University of Washington, Seattle, Wash. 98195. Suggested contribution: $25.00 *–DL*

POPULATION UPDATE

Estimated United States Population:

As of November 1, 1986	242,299,000
As of November 1, 1985	240,123,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 999

Estimated World Population:

As of April 1987	5,005,000,000
Annual growth	84,000,000

Estimated by extrapolation from the mid-1987 World Population Data Sheet (see page 3).

Latest Provisional Statistics for the U.S.: November 1986

	12 months ending with November					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,722,000	3,757,000	15.5	15.8	15.6	15.6
Deaths	2,102,000	2,087,000	8.7	8.8	8.6	8.6
Natural increase	1,620,000	1,670,000	6.8	7.0	7.0	7.0
Marriages	2,385,000	2,426,000	9.9	10.2	10.5	10.5
Divorces	1,178,000	1,186,000	4.9	5.0	4.9	5.1
Infant deaths	39,000	39,400	10.5	10.5	10.6	10.9
Population base (in millions)			240.8	238.1	235.9	233.5

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source. Monthly Vital Statistics Report (Vol. 35, No. 11) from the National Center for Health Statistics.

World Population

Continued from page 3

PRB members receive their copies of the *1987 World Population Data Sheet* in the same mailing as this *Population Today*. Additional copies of the *Data Sheet* can be ordered from the Population Reference Bureau, Inc., Circulation Dept. P.O. Box 96152, Washington, D.C. 20090-6152, with checks payable to PRB. Prices are $2.00 ea.; 2-10 copies $1.75 ea.; 11-50 $1.50 ea.; over 50, $1.25 ea. Orders for $50 or less must be prepaid and must include $1.00 for postage and handling.

TAKE A NUMBER

1987 Population Clock	World	MDCs	LDCs	LDCs minus China
BIRTHS PER YEAR	139,101,802	17,879,793	121,222,009	99,164,269
MONTH	11,591,817	1,489,983	10,101,834	8,263,689
WEEK	2,675,035	343,842	2,331,192	1,907,005
DAY	381,101	48,986	332,115	271,683
HOUR	15,879	2,041	13,838	11,320
MINUTE	265	34	231	189
SECOND	4.4	0.6	3.8	3.1
DEATHS PER YEAR	52,397,182	11,421,490	40,975,692	32,851,392
MONTH	4,366,432	951,791	3,414,641	2,737,616
WEEK	1,007,638	219,644	787,994	631,758
DAY	143,554	31,292	112,262	90,004
HOUR	5,981	1,304	4,678	3,750
MINUTE	100	22	78	63
SECOND	1.7	0.4	1.3	1.0
NATURAL INCREASE PER YEAR	86,704,620	6,458,303	80,246,317	66,312,877
MONTH	7,225,385	538,192	6,687,193	5,526,073
WEEK	1,667,397	124,198	1,543,198	1,275,248
DAY	237,547	17,694	219,853	181,679
HOUR	9,898	737	9,161	7,570
MINUTE	165	12	153	126
SECOND	2.7	0.2	2.5	2.1
INFANT DEATHS PER YEAR	11,200,179	285,065	10,915,115	9,569,593
MONTH	933,348	23,755	909,593	797,466
WEEK	215,388	5,482	209,906	184,031
DAY	30,685	781	29,904	26,218
HOUR	1,279	33	1,246	1,092
MINUTE	21	1	21	18
SECOND	0.4	0.0	0.3	0.3

Source: *1987 World Population Data Sheet* Note: MDCs = More Developed Countries, LDCs = Less Developed Countries

POSITIONS/PROFESSIONALS

Program Associate, International Clearinghouse on Adolescent Fertility of the Center for Population Options, Washington, D.C. to produce a quarterly newsletter on adolescent pregnancy prevention/sexuality education in three languages, manage the operational aspects of a Seed Money Grants Program, and provide technical assistance to developing country adolescent programs, principally in Latin America. *Specific duties:* develop newsletter content; write, edit, and oversee translation; oversee international distribution; prepare, review, and monitor proposals and projects; administer grants. *Qualifications:* B.A. or master's; fluency in Spanish (bilingual/bicultural preferred); minimum two years' experience in developing country; knowledge of family planning/youth work; strong organizational, writing, and verbal skills. Publications experience desirable. *Salary:* Low to mid 20s. *Contact:* Ann Jimerson, ICAF Project Director, Center for Population Options, 1012 14th St. N.W., Suite 1200, Washington, D.C. 20005.

(Technical skills in the following areas desired: grants management; project development; research; family life education; family planning service delivery; development communication.)

Program Associate, The Enterprise Program, John Snow, Inc., to administer private sector family planning subprojects in Asia/Near East, Latin America/Caribbean, and Africa. The Enterprise Program is an AID centrally funded project to expand and strengthen family planning services delivery in the private sector in developing countries. *Specific duties:* monitor subproject contract compliance and performance; reconcile financial reports; review field reports and recommend action; identify need for or respond to requests for technical assistance; procure commodities and equipment; monitor report schedules; and supervise support staff. *Qualifications:* master's degree in public health or related field; previous work experience in international family planning or related field; overseas experience; proficiency in Spanish, French, or Arabic. *Contact:* Reed Wulsin or Connie Millard, The Enterprise Program, John Snow, Inc., 1100 Wilson Boulevard, 9th floor, Arlington, Va. 22209.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing, Volumes I & II. Edited by Cheryl Hayes. Washington, D.C.: National Academy Press, 1987. Volume I, 337 pages. $21.95. Volume II, $40.95 (available through the Publications-on-Demand Program of the National Academy Press).

This new publication from the National Research Council (NRC) examines the controversial problem of teenage pregnancy in the United States. After having reviewed the most recent documentation on sex education in schools, contraception, abortion, adoption, prenatal and pediatric care, child support enforcement, and Aid to Families with Dependent Children, the NRC's panel of experts discusses trends and consequences of adolescent sexuality and fertility behavior.

Volume I reviews current materials and centers around three major goals for policymakers and future programs: (1) to prevent pregnancy among teenagers, especially those who are still of school age, (2) to ensure that alternatives to childbearing and parenthood are available to teenagers who do become pregnant, and (3) to promote better social, economic, and health outcomes for teenage parents and their children. With these goals in mind, the panel looks at the social context of adolescent sexuality and fertility, determinants and decisionmaking of adolescent sexual behavior, and consequences of adolescent childbearing. They then discuss measures to prevent pregnancy and measures that provide alternatives to childbearing and parenting. This volume concludes with a strong recommendation that data collection and research must be continued in order to encourage debate and to provide incentives for the development of effective policies and programs.

Volume II contains 10 scientific working papers giving detailed background information. A comprehensive statistical appendix providing data on trends in sexual and fertility behavior is also included.

— Wendy Patriquin

MEDICINE & AMERICAN GROWTH 1800-1860 by James H. Cassedy. Madison, Wis.: University of Wisconsin Press, 1986. 298 pages. Paper. $19.95.

"Demography" is the first word in this book – appropriately enough, since although it is billed as primarily a history of Early American Medicine, Cassedy has also taken as his subject U.S. demographic history, starting just 10 years after regular census taking began.

The topics it covers are wide-ranging: the role of demography in the field of medicine, U.S. immigration history, vital statistics, the administration of statistics gathering, and national expansionism. Thus, there are chapters on such subjects as the medical demography of immigrants, length of life in the pre-Civil War U.S., the development of a national meteorology network, and even "Army Medical Officers as Demographic Monitors Beyond the Frontier" (they monitored garrisons and sometimes Indian tribes, and sent their medical and statistical reports back to Washington).

One chapter relates how women before the Civil War were beginning to challenge the status quo of gender relationships and of proscriptions against contraception. In this period divorce was rare, but crusades against abortion were numerous, suggesting a cause, and also suggesting that the 1980s were not the only time of wide abortion consciousness in U.S. history.

Copiously annotated, *Medicine & American Growth* represents a vivid insight into American life in the first six decades of the 19th century. It chronicles the role of the medical profession in health, epidemiology and demographic statistics. Historians, demographers and medical personnel alike will find looking into this rear-view mirror absorbing.

— Alexander von Cube

Books Received

AFRICAN SOCIO-ECONOMIC INDICATORS, 1984, by the Economic Commission for Africa. Addis Ababa: United Nations, 1986. 80 pages.

SOCIO-ECONOMIC DEVELOPMENT AND DECREASED FERTILITY IN COLOMBIA. Background Document for the Project "Socio-Economic Development and Decreased Fertility" by the Department of International Economic and Social Affairs. New York: United Nations, 1984. 47 pages.

THE STATE OF THE WORLD'S CHILDREN 1987, by James P. Grant. New York: UNICEF, 1987. 110 pages.

STATE OF THE WORLD 1987 by Lester R. Brown et al. New York: Norton, 1987. 268 pages.

TURKISH REPUBLIC OF NORTHERN CYPRUS STATISTICAL YEARBOOK 1985, by Prime Ministry State Planning Organisation, Statistics and Research Department, December 1986. 241 pages.

WORLD MILITARY AND SOCIAL EXPENDITURES 1986 (11th edition), by Ruth Leger Sivard. Washington, D.C.: World Priorities, 1986. 52 pages. $5.00.

IRELAND

Population (mid-1987 est.): 3,535,000
Land area: 27,136 sq. miles
Births per 1,000 pop. (est.): 18
Deaths per 1,000 pop. (est.): 9
Rate of natural increase (est.): 0.8 percent
Total fertility rate (est.): 2.5
Infant mortality rate (est.): 8.9 infant deaths per 1,000 live births
Life expectancy at birth: 72.8 years
GNP per capita: US$4,840
Capital: Dublin

by Wendy Patriquin

Across the Irish Sea, west of Great Britain, lies the island of Ireland where the Republic of Ireland occupies the southernmost 5/6th of the island. A Gulf Stream influence creates a mild, moist climate throughout the year. Mountain ridges cover the northern and western regions, while the central region is a broad plain. Danes, Normans, English, and Scots are among the series of invaders who settled on the island, leaving behind a population of mixed origin.

Roman Catholics make up 95 percent of the population of the Republic of Ireland, unlike neighboring Northern Ireland, where only one-third of the population is Catholic. English is the predominant language, although until recently Irish was spoken in rural areas.

Historically, the island of Ireland has been marked by British oppression. Until 1920, when the southern 26 counties seceded, the whole island was part of the United Kingdom. However, it was not until 1949 that ties were ended with the Commonwealth and the Irish Free State became an independent republic. Tensions still remain between the two countries of this island, with many Protestants of Northern Ireland wanting to maintain ties with Great Britain while the Roman Catholics wish to strengthen ties with the rest of Ireland.

Ireland has always experienced a constant drift of the population towards the cities, especially Dublin, the capital, and Cork, the second largest city. Together, these two cities account for 25 percent of the population. Emigration has also been a major factor in Ireland's development, particularly during the famine of the mid-19th century. (In fact, Ireland is the only country whose population has halved in modern times.) In the 1970s net emigration stopped, and (since the birth rate in Catholic Ireland has always been above the European norm) the country's population grew for the first time since the famine years of the 1840s. As a result of this recent growth, Ireland now has the youngest population (30 percent under age 15) in Europe (excepting Albania).

Ireland's economy was predominantly agricultural until the 1960s and 1970s, when industry grew rapidly. This growth has tapered off during the early 1980s, leaving behind an unemployment rate of 18 percent. Consequently, emigration has been on the rise again except this time a larger share of those leaving are going to Western Europe, where travel and employment are facilitated by Ireland's membership in the Common Market. It is estimated that over the next five years at least 125,000 people will leave Ireland in search of a better life.

The fertility level is considered acceptable, and the government has a policy of maintaining the current rate. The Family Planning Act of 1979 restricts availability of contraceptives and promotes natural methods. Contraceptives, including condoms, are prescribed only for married couples. Abortion is illegal. Pronatalist incentives include child allowances, maternity grants, and maternity leave.

REPUBLIC OF IRELAND
"WE'RE THE YOUNG EUROPEANS."

In Europe, few countries can make this statement.

R8750-1
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POPULATION TODAY

Vol. 15, No. 5 May 1987

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实行计划生育是我
国的一項基本国策

Jill Merrick

Poster exhorts one-child family. But see page 3.

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FROM THE EDITOR'S DESK

"PRB currently projects that the world's population will be 6.2 billion in the year 2000 . . ."

How's that again? No, not the 6.2 billion part. And no, not the propriety of using 2000 as opposed to some other year – an issue that was thrashed out in the March and June 1986 *PT*.

The issue at hand is that vexing phrase *"the year 2000."*

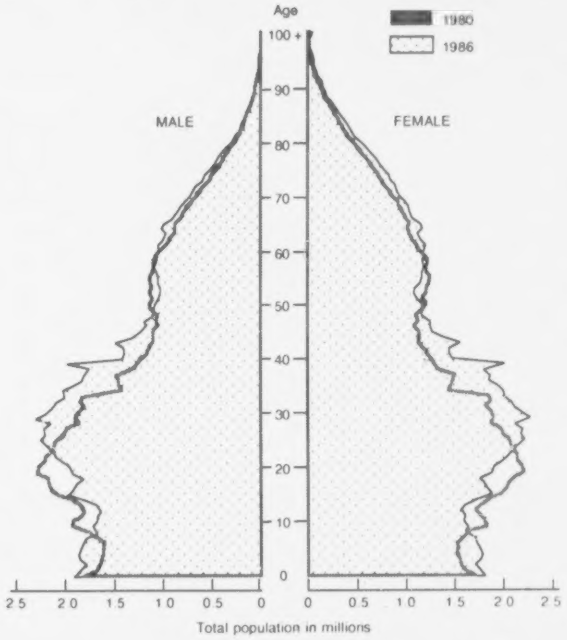
David Carradine's cinematic chef d'oeuvre, made in the year 1975, was called *Death Race 2000* because the producers respected the audience's intelligence -- regarding dates, anyway. Yet most of us editors assume that our readers are not ready for the 21st century, and/or that an unvarnished 2000 is confusingly *even* – like a statistic or a brand name (the Gas Hog 2000 GT). Hence the editorial itch to insert "the year."

But sooner than you think, the day cometh when we'll all be muttering: "Boy, here it is February, and I'm still writing '1999' on my checks." High time we got used to 2000 *au naturel* (likely to be pronounced "two thousand") and its immediate 21st century successors (likely to be pronounced "twenty-oh-one," "twenty-fourteen," etc.). " So henceforth in *PT*, no more "years." Just the numbers, please.

– Art Haupt

SPEAKING GRAPHICALLY

The Inexorable Aging of America (Special Supplement)



The Census Bureau figure above shows the distribution of the total U.S. population (including armed forces overseas) by age and sex at two dates: April 1, 1980, and July 1, 1986 (estimated). The 35-44-year-old group has grown by an impressive 29 percent during the 1980s; the 85 and older group had a 25 percent increase.

The U.S. has more salt-and-pepper in its collective hair than in 1980.

Source: *Current Population Reports*, P-25, No. 1000.

POPULATION TODAY

VOL. 15, NO. 5 **May 1987**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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China's Birth Rate Reported on Rise

The March *PT*'s lead article on PRB's *1987 World Population Data Sheet* summarized a piece of late-breaking demographic news: China's birth rate is reported to have risen in 1986, reversing a long-term trend toward low fertility and doing so in the face of the world's most rigorous family planning program.

If the rise continues, it changes the future growth prospects of a country that has placed enormous stakes on sharply curbing the rate of its population growth. Herewith some further information and background on this important demographic development.

Jill Merrick

The one-child family remains China's official policy

The Data Thus Far

According to newly published results of a survey conducted in 1986, China's birth rate has risen significantly: to 20.8 births per 1,000 population (compared to 18 per 1,000 in 1985).

The new rates were published in the *Beijing Review* No. 9 (Mar. 2, 1987), and they derive from the State Statistical Bureau's 1986 sample survey of 413 counties and cities in 29 provinces, autonomous regions, and municipalities.

China population watchers speculate that the 1986 data are consistent with a total fertility rate (TFR) of 2.4 births per woman – higher than recent estimates of 2.1, which in turn had been based on earlier survey results as well as the 1982 Census.

The Background

In some ways, the rise in China's fertility is only the latest round in the decade-long ups and downs of that country's family planning efforts that have left outside observers scrambling to catch up.

Ever since the 1979 announcement of the one-child family policy and the goal of a population of no more than 1.2 billion by 2000, the government's demographic goals and its enforcement of them have likewise had their ups and downs. The principal spur has been the acknowledged difficulty of achieving that 1.2 billion limit. To achieve it, Chinese officials called for the natural increase rate to be reduced to 0.5 percent or lower, but such low levels of growth have never been attained.

A contributing factor may be China's economic and social changes

The Explanations

What has happened to cause China's birth rate increase? And what implications does this fertility change have for the nation's future?

One major factor is the simple effect of China's age structure – the baby boom "echo" as the relatively large cohorts of 1962-1964 now reach reproductive age. These Chinese baby boomers were born in greater numbers right after the disastrous "Great Leap Forward" (1958-1960), when there was prolonged famine and fertility dropped precipitously. Now these baby boomers are having their own babies, and their numbers magnify any rise in fertility that the national population experiences.

The new marriage law of 1980 may also be having an effect. Delaying marriage is one way of reducing fertility; administrative rules during the 1970s raised the marriage age to the mid- and late 20s; the Marriage Law of 1980 lowered it to 20 for women and 22 for men.

Another factor: the intermittent cycles of aggressive implementation and relaxation of China's population program during the 1980s. China watchers have chronicled at least three cycles of aggressive implementation followed by signs of policy relaxation and exception-granting to parents (e.g., because of minority status, because the first child was born disabled), presumably in response to protest. According to one estimate, the one-child policy at its most restrictive seems to have allowed about 5 percent of the parent population to have a second child; at its most relaxed, about 10 percent.

Meanwhile, surveys of desired family size taken in different parts of the country and published by government agencies detect differing but definite levels of popular interest in having two or more children. A 1985 survey in urban Zhejiang, for example, found that 28 percent of unmarried young people wanted 2 or more children. A 1986 Sichuan survey found that 75 percent of its Yi minority wanted at least 3. Such responses should not be surprising in a developing, largely rural country.

Continued on next page

China

Continued from the preceding page

Finally, another ironic factor may well be the effect of China's new economic and social changes. The emphasis on modernization and economic development is creating new migrant populations in urban areas who are slipping through the administrative cracks as far as fertility surveillance and counseling are concerned. Meanwhile, the privatization of agriculture, in encouraging farmers to increase productivity (they can sell some of their crops privately at a profit), also implicitly encourages them to acquire more helping hands (i.e., children) to cash in on this new opportunity.

Jill Merrick

China fears its 21st century.

Whether the apparent birth rate rise in China is an anomaly or a harbinger of future fertility remains to be seen. For the time being, it means that China, which had some 18.9 million births in 1985 (1.05 billion population, with a birth rate of 18), did rise to some 22.3 million births in 1986 (a 1.062 billion population with a birth rate of 21) – an increase of more than 3 million births. Furthermore, China's fertility change is enough to increase the world's birth rate by 1 in 1987. China is not only a world strategic power, after all, but insofar as events there can affect world statistics, it is a demographic power as well. *– A.H.*

State and City Numbers Galore

Cornucopia, that much-bandied word, applies very much in the case of the U.S. Census Bureau's *State and Metropolitan Area Data Book 1986*, an occasional publication that is published as a supplement to the well-known annual *Statistical Abstract*.

For $28.00, a serious numbers junkie gets a hefty, telephone-book-sized tome consisting of 682 pages of tabular material, giving data about all 50 states, all 277 metropolitan areas, and the central cities within those metro areas.

The dozen categories for metropolitan areas encompass such items as population and vital statistics, personal income, employment, government finance, crime, housing, manufacturing and retail trade, health, education, and voting. Counting every subcategory of data presented, this adds up to 1,873 columns of data at the state level, 298 for metropolitan areas, and 86 for central cities.

The kinds of data that can be winnowed from the *Data Book* include cable TV households, air transportation jobs, energy prices, major crops and minerals, and even the distribution of millionaires (out of the U.S.'s 407,000 millionaires, California has 64,000) – not to mention numbers of such items as gas stations, eating and drinking places, aggravated assaults, votes cast by party in federal elections, and physicians per 1,000 population.

And what data – and what juxtapositions! For example, to take three curiously related economic sectors: As of 1982, Americans as a whole spent about $34.3 billion annually on legal services; that was a little more than on auto repair, services, and garages ($30.7 billion); and about one-third the amount spent on health services except hospitals ($95.6 billion).

Yet interestingly, for whatever it's worth, perusal of the *Data Book* reveals that in Platte, Mo., in 1982, expenditures for automotive repair, etc. ($20.5 million) were three times those for health services ($6.7 million). What's going on in Platte?

That's the kind of statistical detail you find in the *Data Book*'s tables.

The annual *Statistical Abstract*, which this *Data Book* supplements, covers many more subjects mostly at the national and state level. A sibling publication is the *County and City Data Book*, issued most recently in 1983, which presents these same data for countries, cities with 25,000 or more inhabitants, and to a lesser extent, for places with less than 2,500 inhabitants. The next edition of that publication is scheduled for 1988.

The data contained in the *State* and Metropolitan Area Data Book are also available on IBM-compatible diskette as well as on computer tape.

The Statistical Abstract

As for the *Statistical Abstract of the United States*, the 1987 edition of this invaluable reference has also just been published. The *Statistical Abstract* might be called the U.S. Government's version of the *World Almanac* and is about the same size, containing a uniquely broad one-volume summary of U.S. vital statistics and social, political, and economic data – everything from consumption of soft drinks (45.6 gallons per capita during 1985) to the cost of the Revolutionary War (estimated at $400 million to $680 million, if you were paying for it in 1967 dollars). All this info-power has a price, however, as the 960-page reference now has a price tag of $22.00 in paperback, over three times as expensive as the private sector's *Almanac*.

These two Census Bureau publications can be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. For further information about ordering the *Data Book* in computerized form, call (301) 763-1034, or write the Chief, Statistical Compendia Staff, Data User Services Division, U.S. Bureau of the Census, Washington, D.C. 20233. *– A.H.*

SURVEY REPORT

Egypt CPS

The Egyptian government must increase its financial and political commitment to family planning programs if it wants to lower the birth rate.

This is the conclusion of the report on the 1984 Egypt Contraceptive Prevalence Survey. The survey of 10,013 ever-married Egyptian women under age 50 found that contraceptive use had increased by 6 percentage points since the last national level survey in 1980, but the effect of this has yet to show up in lowered fertility levels.

Since 1973, the Egyptian government has supported policies to slow population growth. But the 1986 Census counted over 50 million inhabitants, up by a third from only a decade earlier, an increase that showed that population growth has not abated and which solidified Egypt's position as the Middle East's most populous nation.

Survey-based estimates indicate that married women would bear an average of 6.9 children by the end of their childbearing years if 1984 marital fertility rates remain constant. This is about the same level measured in the 1980 Egyptian Fertility Survey, and is comparable to 1970s birth rates. While urban and more educated women are having smaller families, birth rates appear to have remained stable for Egyptian women in general.

One factor contributing to high birth rates, according to the report, is a high level of infant mortality. Over 40 percent of the women surveyed had experienced the death of a child. The infant mortality rate was estimated to be 140 infant deaths per 1,000 births for the 1978-1982 period, based on respondents' birth history data.

But survey responses indicate that Egyptian women are having more children than they prefer. The average number of children considered "ideal" is 3.3, 2 or 3 children less than the current fertility rate. Sixty-four percent of the currently married women said they did not want more children, while 8 percent wanted to delay their next birth, suggesting a real desire among women to control their own fertility.

Egyptian family planning agency counsels a patient.

The 1984 survey found that 85 percent of the ever-married women are familiar with effective contraceptive methods, and that most methods, particularly the pill, are easily available in retail pharmacies as well as private and public clinics. Thirty percent of the currently married women surveyed were using a contraceptive method in 1984, an increase from 24 percent in 1980. Over one-half of the users relied on the pill, just over one-quarter had IUDs, and 10 percent used sterilization or condoms – reflecting an overwhelming preference for these most effective methods.

However, many Egyptian women surveyed were unsure of how to use the pill and this lack of knowlege is reflected in high contraceptive failure rates. About 25 percent of the former pill users surveyed became pregnant while on the pill. Also, about one-quarter of the currently married women surveyed were not protected by contraception even though they were trying to cease or delay childbearing.

While contraceptive use is the primary inhibitor to even higher fertility rates, a trend toward older age at marriage and prolonged periods of breastfeeding also promote smaller family sizes. While average age at marriage for women age 25-29 in 1984 was a young 17.6, this was more than a year older than the age at marriage for women age 45-49 in 1984, suggesting that the younger generation is marrying later. Egyptian mothers surveyed stated that they would prefer their own daughters to wait until they were even older before marrying. An older age at marriage is associated with fertility decline because it shortens the span of years during which a woman is likely to bear children.

Prolonged breastfeeding of babies, prevalent in Egypt, leads to longer intervals between births because it extends the postpartum infertile period. Egyptian women tend to breastfeed their babies a median of 19 months – 24 months in rural areas. Without this "natural" form of birth spacing, which some women try to use as a birth control method, fertility would be even higher.

The survey report, *Fertility and Family Planning in Egypt, 1984*, also outlines policy implications of the findings and recommends that similar surveys be taken about every five years to help monitor progress of the family planning programs in Egypt. For copies of the full report, contact: Westinghouse Public Applied Systems, PO Box 866, American City Building, #400, Columbia, Md. 21044. –M.K.

DEMOGRAPHER'S PAGE

Asians in American Industry

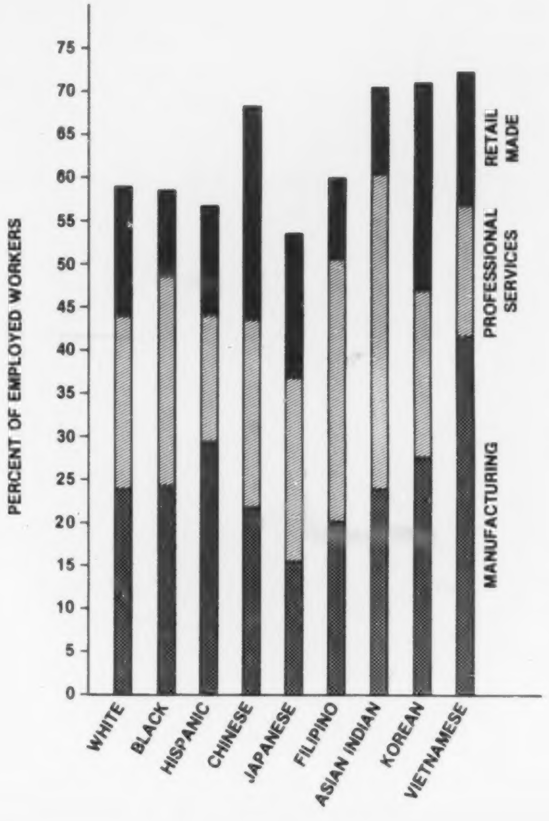
by Gordon F. De Jong and Robert W. Gardner

Demographers usually address labor force questions by analyzing the occupations of workers. Occupation in turn is closely related to education, and data on these two characteristics can be combined into indicators of socioeconomic status – an important concept in academic research. Data on industry are less frequently analyzed by demographers, although the relevance of such data for economic development planning and policymaking may exceed that of occupational data.

This brief article provides some insight into the niches that recent and earlier immigrant workers from Asia and native-born Asian American workers occupy in the American industrial structure. For politicians, corporate leaders, and American workers, perhaps no issue concerning immigration is more important than the place of immigrant workers in the American labor force. This issue touches the raw nerve of whether immigrant workers enter economic sectors where they directly compete for jobs with American-born workers, particularly workers in heavily unionized industrial sectors such as manufacturing.

Our analysis is based on a special 5-percent Public Use Microdata Sample of 1980 U.S. Census data of the employed population aged 25-64 of the following groups: Chinese, Japanese, Filipino, Asian Indian, Korean, and Vietnamese. These groups are subdivided into native-born and immigrants by period of arrival, and comparisons are made with white and black populations, most of which are native-born, and with Hispanics (who may be of any race; hence there is some overlap between Hispanics and groups defined by the census concept of race). We focus on the industrial categories of manufacturing, professional services, and retail trade because the majority of workers in America are employed in these sectors.[1] In 1980 just under 60 percent of all American workers were employed in one of our three criterion industries. Looking at Asian Americans without regard to place of birth (Figure 1), we find that all of the Asian groups, with the exception of the Japanese, had a higher proportion of workers employed in these three industrial sectors than did whites, blacks, and Hispanics. Patterns within the groups among the three industrial categories, however, varied considerably. Compared to non-Asians, Chinese workers showed a diversified pattern of nearly equal representation in the three sectors, with a relative concentration in retail trade. Asian Indian and Filipino workers were concentrated in professional services. Korean workers had high proportions in both retail trade and manufacturing, while Vietnamese workers were noticeably concentrated in the manufacturing sector.

Figure 1. Percent of employed workers in manufacturing, professional services, and retail trade, 1980



Industry by Year of Immigration

These patterns conceal futher variation. One of the dimensions of variation is nativity, and it is this which we examine in the balance of the article. Data on the industrial sector employment patterns of native-born Asian Americans provide an important indicator of the intergenerational adjustment patterns of these groups, while data on immigrants by year of arrival provide evidence of the changing place of Asian immigrants in U.S. industry and of the effects of changes in U.S. immigration law.

Data on employment in manufacturing (Figure 2) clearly indicate that in 1980 native-born Asian Americans are much *less* likely to be employed in that sector than were either immigrant Asian workers or white, Hispanic, or

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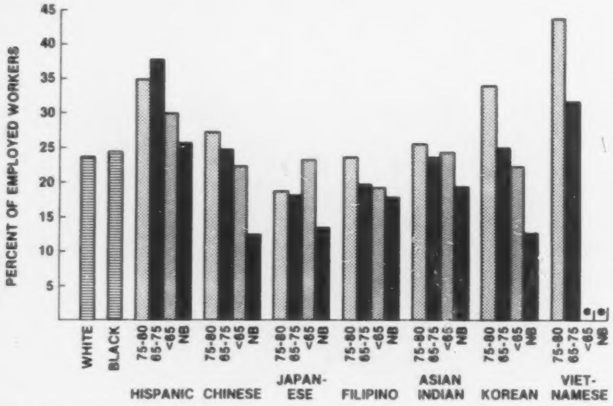
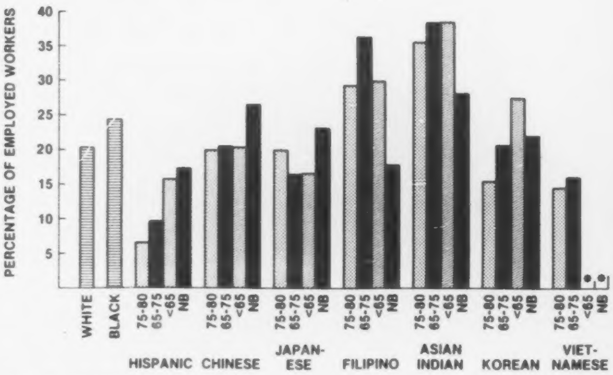
Robert W. Gardner is Research Associate at the East-West Population Institute, Honolulu

Figure 2. Percent of employed workers in manufacturing in 1980, by year of immigration



*INSUFFICIENT CASES
NB=NATIVE BORN

Figure 3. Percent of employed workers in professional services in 1980, by year of immigration



*INSUFFICIENT CASES
NB=NATIVE BORN

black workers. This suggests that at least in the heavily unionized manufacturing sector of the American labor force, native-born Asian Americans were not a major source of competition with other Americans for jobs.

Among Asian immigrant workers, recent arrivals, except Japanese, were more likely to be employed in the manufacturing sector than were earlier immigrants. Thus, it was recent Asian immigrants, especially Vietnamese and Korean, who provided competition for other Americans for manufacturing jobs.

The professional service sector of the economy in 1980 was the notable niche of Asian Indian and Filipino immigrant groups (Figure 3), while Vietnamese (and Hispanics) were notably underrepresented. American-born Asian Indians and Filipinos had a lower proportion employed in professional service industries than their immigrant counterparts. An opposite pattern of adaptation to American industry was true for Chinese and Japanese native Americans, who had a higher proportion employed in professional services than the immigrants.

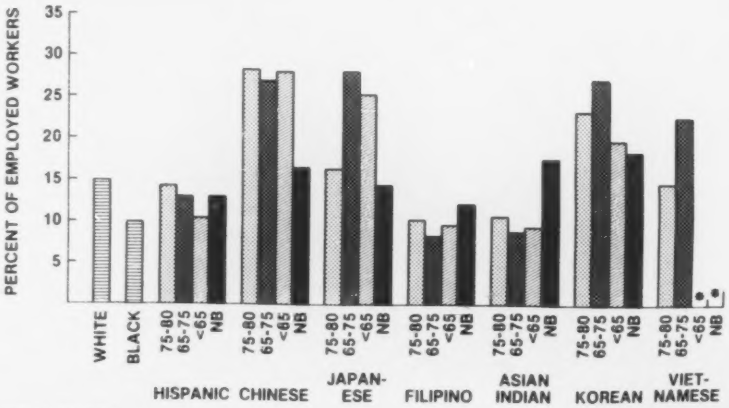
The traditional concentration of Chinese, Japanese, and Korean immigrants in the small business and commercial retail trade sector continued to hold in 1980 (Figure 4). Native-born Asian Americans of these groups, however, were much *less* likely to be employed in this sector, and were more similar to whites though still higher than blacks and Hispanics in this regard. Asian Indian and Filipino immigrants, who as we have seen were concentrated in professional services, were notably underrepresented in the retail trade sector.

Discussion

Asian Americans in 1980 occupied varying niches in the industrial structure of the United States. Concentrations were found among Vietnamese in manufacturing, Koreans in retail trade and manufacturing, and Filipinos and especially Asian Indians in professional services. These overall patterns masked much variation by nativity. Immigrant Asians were more concentrated than others in manufacturing. Asian Americans in general and immigrant Filipinos, Koreans, and Asian Indians in particular were concentrated in professional services, and immigrant Chinese, Japanese, and Koreans were found in relatively large proportions in retail trade.

Continued on next page

Figure 4. Percent of employed workers in retail trade in 1980, by year of immigration



*INSUFFICIENT CASES
NB=NATIVE BORN

Continued from preceding page

These observations only begin to illustrate the place of Asian American industry and the usefulness of looking at industry data. Concentration of an immigrant group in a certain industry can be an indicator of possible competition with other groups.

The industry data presented here show only limited areas of high concentration of Asian immigrants, and often a trend by native-born Asian Americans toward the national employment pattern. Our study, however, does not provide a more detailed analysis of regional or local patterns of concentration. Although in 1980 U.S.-born and immigrant Asians accounted for only 1.6 percent of the total national labor force, data on the distribution of all Asians, not just the employed, show that Asians are strongly concentrated in certain areas of the country, especially the West. Hence, if there is competition, that is where it is likely to be found. Furthermore, we do not deal with more detailed industry categories, such as the classic case of greengrocers, where Koreans are apparently seen as a threat to some other groups in some cities.

The impact of Asian natives and immigrants upon American society will become increasingly important as more Asians seek to immigrate and to raise their families in the United States. An important indicator of that impact will be their patterns of employment in U.S. industry. □

Note

1. Manufacturing positions include such durable and nondurable production as furniture, metals, machinery, electrical equipment, food products, textile products, and printing. Professional services include positions in health, hospitals, education, social, religious, engineering and accounting services. Retail trade includes positions in food, bakery, dairy, hardware, apparel, appliance, and other stores and eating places.

Europeans Want Larger Families?

European fertility is famous for being the world's lowest, but that's not the whole story. The results of a recent survey of European nations covering "ideal number of children" reports a potential for higher family sizes than present birth rates might suggest.

A report issued by the Council of Europe, *Exchange of Views on Opinions and Attitudes with Regard to Demographic Problems*, contains the somewhat surprising results of national demographic surveys. While West Germany has the lowest fertility, a total fertility rate of 1.3 lifetime births per woman, the survey population of persons aged 18 and over gave 2.4 as the model number of children. Results were similar in low-fertility Denmark, Italy, Switzerland, and other countries.

In many of the countries cited, the ideal number of children generally rose in successive years. For example, in the Netherlands in 1979, 1980, and 1981, the figures given were 2.29, 2.40, and 2.57, respectively.

Several surveys interviewed only women in the childbearing ages as opposed to the population of both sexes. In Belgium, Flemish women aged 20-45 gave a lower response (2.26 children) in 1982-1983 compared to the population 18 and over in 1981 who indicated 2.78 as their choice. But in Switzerland, women gave a slightly higher response, 2.35, than did men, who gave 2.24 in 1982.

The results indicate a wider differential between actual and "ideal" fertility than exists in the United States. In the U.S., women 18-34 say they expect to have about 2.1 children while the actual total fertility rate is 1.8. In Europe, the optimum number of children is noticeably higher, although the differing definitions of "ideal" in Europe and "expected" in the U.S. rule out any strict comparison.

Attitudes on the prospects of population decline vary considerably. In West Germany, decline was viewed as "inopportune" by 68 percent of respondents 18 and over in 1984, but only by 13 percent in the Netherlands. Two-thirds of French respondents felt that the fertility decline was troublesome in 1982, about twice the proportion giving that response in Italy. –*C.H.*

LETTER TO THE EDITOR

Having served at the National University of Singapore as a Visiting Professor, I particularly appreciated your Spotlight on Singapore (Feb. 1987 *PT*). However, I noticed one rather substantial error in that otherwise accurate report – the statement that "some 30 percent of the population lives in public high-rise apartment complexes."

This dramatically understates the extent of Singapore's public housing activity and the proportion of Singaporeans residing in government-built housing. As of 1985, 77 percent of the population and virtually all low- and middle-income Singaporeans lived in government-built and managed Housing Development Board (HDB) flats. Currently, the proportion is just over four-fifths of all Singaporeans living in HDB housing estates, virtually all of which can be defined as high-rise apartment complexes.

However, even more remarkable is that two-thirds (64 percent) of all HDB flats are being purchased rather than rented by their occupants. Under Singapore's Capital Home Ownership for the People plan, since 1968 buyers have been able to use their Central Provident Fund (social security) contribution to provide both downpayments and monthly payments for as long as 20 years for house purchases. Moreover, for two decades the interest rate charged for such home purchase loans has been a moderate 6¼ percent. As an additional incentive, HDB flats cost only one-fifth to one-quarter the price of comparable private market flats.

J. John Palen
Professor and Chair
Dept. of Sociology & Anthropology
Virginia Commonwealth University

New From PRB

The latest issue of *Population Education Interchange* (May 1987), being mailed to PRB members with this issue of *PT*, is "Mexico's Population: A Profile." It paints a broad population portrait of Mexico and its 82 million people.

The four-page population publication gives high school and college teachers background information and teaching aids to help in their instruction about Mexico. It summarizes the sudden boom in population since 1940 (when the population stood at 20 million), its impact on Mexico's economy and cities, the government's policy response, and the migration stream toward the U.S.

The quarterly *Population Education Interchange* is one activity of PRB's Population Education Dept., whose mission is to provide a population resource base for schools and for teachers, enabling them to teach demographic concepts and current population issues in the classroom as part of courses in such fields as geography, history, political science, and current events. The department also publishes *Population Learning Series Modules*, the most recent of which, "Global Population Trends: Challenges Facing World Leaders," describes the role of population dynamics in today's current events and the pressures that face national governments. Department director Kimberly Crews also travels, conducting training workshops for teachers, most recently at the Northeast Regional Conference on the Social Studies in Boston, Mass., and the National Science Teachers Association Convention in Washington, D.C.

PRB members receive *Interchange* and the *Modules* as part of their membership. Additional copies of *Interchange* are available for $1.00 (2 or more, $0.75 ea.); additional copies of *Population Learning Series Modules* are available for $2.00. Either can be ordered from the Population Reference Bureau, Inc., Circulation Dept. P.O. Box 96152, Washington, D.C. 20090-6152, with checks payable to PRB. Orders for $50 or less must be prepaid and include $1.00 for postage and handling.

SOFTWHERE

The National Collegiate Software Clearinghouse distributes an impressive list of social science software dealing with data analysis, economics, education, statistics and demographic programs, to mention just a few.

With a little effort on the user's part, these programs can turn a personal computer into a powerhouse of population analysis. Some programs of interest are: Future Population by Ralph Sell, which is a cohort-component projection package; Population Pyramids, by Robert Sechrist (reviewed in the March 1987 *PT*); and Popsim by Laurence and Carol Falk, a demographic forecasting program that includes a database of over 60 countries. Programs are available for both IBM and Apple systems. All are under $28. To obtain the Clearinghouse's mailing list and more information, write to: NCSU Software, North Carolina State University, School of Humanities and Social Sciences, Box 8101, Raleigh, N.C. 27695, or call (919) 737-3067. *—D.L.*

POPULATION UPDATE

Estimated United States Population:

As of December 1, 1986	242,577,000
As of December 1, 1985	240,344,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1001.

Estimated World Population:

As of May 1987	5,012,000,000
Annual growth	87,000,000

Estimated by extrapolation from the mid-1987 population on PRB's *World Population Data Sheet*.

Latest Provisional Statistics for the U.S.: December 1986

	12 months ending with December					
	Number		Rate			
Item	1986	1985	1986	1985	1984	1983
Live births	3,731,000	3,749,000	15.5	15.7	15.7	15.5
Deaths	2,099,000	2,084,000	8.7	8.7	8.7	8.6
Natural increase	1,632,000	1,665,000	6.8	7.0	7.0	6.9
Marriages	2,400,000	2,425,000	10.0	10.2	10.5	10.5
Divorces	1,159,000	1,187,000	4.8	5.0	4.9	5.0
Infant deaths	38,600	39,500	10.4	10.6	10.7	10.9
Population base (in millions)			241.1	238.3	236.1	233.7

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source. Monthly Vital Statistics Report (Vol. 35, No. 12) from the National Center for Health Statistics.

Update on U.S. Amnesty

With the U.S.'s massive new amnesty program for illegal aliens now under way, another part of the new Immigration Reform and Control Act – that involving agricultural workers – is rolling on a parallel track.

Starting June 1, and continuing for 18 months (until Nov. 30, 1988), undocumented aliens may apply for temporary residence if they worked at least 90 days in seasonal agriculture between May 1985 and May 1986 (or 90 days per year between May 1983 and May 1986). The application cost – $185 per person, or $420 per family – is the same as for the regular amnesty program.

Clearly, the amnesty provisions for agricultural workers are somewhat more lenient than those for any other undocumented group. This is due to the political realities that were the basis for the new immigration law: namely, the concern of agricultural interests that the law not disrupt their supply of labor from Mexico. As a result, the law also has a provision that should the Departments of Labor and Agriculture find a shortage of agricultural labor, "replenishment" workers could also be admitted to the U.S. starting in 1989 and be granted temporary resident status and eventually citizenship.

For all other illegal aliens, May 5, 1987, is Amnesty Day. On that day, undocumented aliens who can prove that they have resided in the U.S. since Jan. 1, 1982, will be able to apply for temporary residency (see *PT*, April 1987). After May 4, 1988, the window for temporary applications closes. On Dec. 5, 1988, aliens who have gained temporary status will have an 18-month period to apply for permanent status.

Judging by preliminary interest evinced in the amnesty program, the flood of applications could be high.

How the Immigration and Naturalization Service will cope is open to question. While it has 100 amnesty-application offices scattered around the country, that works out to only one office in the Washington, D.C., area – the tenth most populous metro area and one with many illegal aliens. *– A.H.*

TAKE A NUMBER

Canada Conducting Detailed Study: Canada is currently in the process of a three-year study entitled *The Review of Demography and Its Implications for Economic and Social Policy*. The study will conclude with a report to the Cabinet on Mar. 31, 1989, on possible future changes to 2025 in Canada's population size, age structure, and distribution. Of special interest in the study is the prospect of population decline due to low fertility and the impact of immigration on the labor market. The study is a particularly interesting one in that it entails a comprehensive review of the effects of demography on many aspects of society and is somewhat reminiscent of a similar study conducted in the U.S. in the early 1970s by the Commission on Population and the American Future.

Here and There there will be a census in West Germany on May 25 after all, the first since 1970, but officials are worried about a partial boycott. The Green Party in Augsburg, always anticensus on civil rights grounds, called for a national boycott, and as a consequence had their meeting hall lease revoked by an evidently pro census owner Vietnam has proposed a norm of 1 or 2 children per woman with childbearing not to begin before age 23 and stopping after age 35. Couples complying with the program will receive preference on promotion, bonuses, and the chance to move to an urban area high school dropout rates declined in the U.S. from 1973 to 1983, the Census Bureau reports. (This measure is somewhat different from the cumulative dropout rate on PRB's *United States Data Sheet*.) From 1982 to 1983, 5.2 percent of 10th, 11th, and 12th graders left school, down from 6.3 percent in 1972-1973; for black males, the drop was even sharper, from 12 percent to 7 percent. *– C.H.*

ADDENDA

94 years ago On November 9, 1893, the Roosevelts' fifth child, a boy, was born unexpectedly. "Edith is doing well," Theodore wrote [his sister] Bamie. "By the aid of my bicycle I just got the Doctor and Nurse in time. We are very glad and much relieved." Within two hours of his son's birth he had entered him for Groton. The baby was baptized Quentin, in honor of Edith's grandfather, Isaac Quentin Carow. Cabot Lodge* attended the christening, to Theodore's amusement, "with gloomy reluctance." It was "against his principles to sanction anything so anti-malthusian as [an additional] child."

The National Portrait Gallery, The Smithsonian Institution

(Quoted in Silvia Jukes Morris's *Edith Kermit Roosevelt: Portrait of a First Lady*. New York: Coward, McCann & Geoghegan, 1980.)

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*Sen. Henry Cabot Lodge (R-Mass.), close friend of the Roosevelts.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

CONTEMPORARY MARRIAGE, edited by Kingsley Davis in association with Amyra Grossbard-Shechtman. New York: The Russell Sage Foundation, 1986. $29.95. 432 pages. ISBN 0-87154-221-8.

Contemporary Marriage presents a cross-disciplinary, cross-cultural examination of the unprecedented changes that have been occurring in the institution of marriage in industrialized countries. Most of its 15 papers were prepared for a seminar on this theme at the Center for Advanced Study in the Behavioral Sciences at Stanford during the 1980-1981 academic year. Editor Kingsley Davis's introduction provides readers with a guide through the variety of perspectives and methodological approaches presented, including demography, economics, sociology, anthropology, history, and law. His paper on "The Future of Marriage" presents comparative international data on marriage trends.

Data on the U.S. are found in Thomas J. Espenshade's paper, "The Recent Decline of Marriage in America: Blacks and Whites in Comparative Perspective," and "Cohabitation in the 1980s: Recent Changes in the United States," by Graham B. Spanier. Cross-cultural perspectives appear in papers on France, China, Israel, Japan, Southern Africa, and U.S. Mormons. Psychological aspects of changing marriage patterns are addressed in three papers, and institutional factors are examined in several, including two on the transformation of laws on marriage and divorce. While readers have to contend with considerable methodological variation, from essay-type discussions to multiple-decrement life tables and multiple-classification analysis of survey data, the editors' efforts to revise and reshape papers for the volume have given it a coherence that makes it interesting and informative reading for specialists as well as nonspecialists.

— Thomas W. Merrick

LIMITING POPULATION GROWTH AND THE FORD FOUNDATION CONTRIBUTION, by John Caldwell and Pat Caldwell. London and Dover, N.H.: Frances Pinter, 1986 (dist. by Longwood Publishing Group, Wolfeboro, N.H.) 194 pages. $27.00. ISBN 0-86187-576-1.

Shortly after World War II, Frank Notestein and other leading U.S. demographers warned of an impending Third World population explosion and called for "preparation" of experts who could influence adoption of action programs to reduce fertility. This is the story of the Ford Foundation response to that call, written by a well-known Australian demographic team whose quarter-century of research throughout the developing world well equips them to gauge the results.

From 1960 to the early 1980s, the Ford Foundation's Population Program, guided by the "one-man success story" of Oscar Harkavy, invested $45 million of a total $270 million spent on population activities in development of Third World-oriented graduate training and research in demography and family planning. (The first Ford population grant was in 1952 to PRB to support publication of the *Population Bulletin* for three years.) The Caldwells credit individuals trained or connected "surprisingly frequently" with these programs with key roles in shaping Third World population policy, especially in Asia and also in the United States. Ford funds also primed the pump for "massive" funding in this area from U.S. Government and other sources, though this support has now dwindled and Ford funding of university population programs and the Population Council had ended by 1984.

The Caldwells warn that Asia's fertility control successes (chiefly China, India, and Indonesia) are not being repeated in "the arc stretching from Botswana to Burma." Guidance on what might work is needed from "vastly more" small-scale studies, supported by flexible, innovative funding like that of the Ford Foundation.

— Jean van der Tak

WOMEN IN THE AMERICAN ECONOMY, by Cynthia M. Taeuber and Victor Valdisera. Current Population Reports Special Studies, Series P-23, No. 146. Washington, D.C.: Bureau of the Census, November 1986. 45 pages. $2.75.

Although it is not a new finding that women remain in a secdary economic status despite unprecedented change since the early 1970s, this book is the first Census Bureau publication to give such major treatment of the subject.

The text considers the economic consequences of changes in social and demogaphic trends, i.e., living arrangements, fertility, and marriage, which in turn are differentiated by age, race, and ethnicity. The appendix of references and sources provides an excellent overview of government documents and literature pertaining to the subject.

This publication will be widely available through federal depository libraries and undoubtedly in comprehensive women's collections as well. However, those with an interest in the topic should probably obtain a personal copy, as *Women in the American Economy* will surely become an essential citation in future studies.

— Denise Molajo

SPOTLIGHT

BERMUDA

Population (1986 est.): 58,000
Land area: 21 sq. miles
Births per 1,000 pop.: 14.6
Deaths per 1,000 pop.: 7.3
Rate of natural increase: 0.7 percent
Infant mortality rate: 13.9 infant deaths per 1,000 live births
GNP per capita: $20,100
Literacy: 98 percent
Capital: Hamilton

by Richard Weil

Awash in the warm waters of the Gulf Stream, the Bermuda Islands lie 600 miles east of Cape Hatteras, North Carolina. Composed of wind-deposited limestone on top of a sunken volcano, the group has 138 islands, the largest seven of which are connected to form a "mainland" 22 miles long.

A British dependency, Bermuda lacks natural resources. Its limestone is useful for building houses, but the underlying soil contains neither fuel nor ores. Despite this, inhabitants of Bermuda today enjoy one of the highest living standards in the world because they have employed their one great resource: the islands' location.

First sighted around 1503 by Spanish navigator Juan Bermudez, the islands were not settled until 1609 when a British ship en route to Virginia was wrecked on a nearby reef. Over time a society of small planters developed, but farmland was limited and today less than 700 acres are considered arable. The nearby sea lanes became paths to survival and made Bermuda an important North American trade link. Black slaves and Indians were imported and by 1774 the population of 10,000 was just half-white. Today the population is about 60 percent black.

During the American Revolution gunpowder was sent to the rebellious colonists in trade for food, while the Civil War saw the islands used by blockade runners, and Prohibition made them a haven for alcohol smugglers.

During the Napoleonic Wars, Britain began to build massive docks and fortifications for a naval base designed to make Bermuda a "Gibraltar of the West." Later in the 19th century, the islands became a natural wintering spot for New Yorkers; other settlers arrived, agriculture briefly flourished and eventually a tourist trade began.

World War II radically changed Bermuda. In 1941, the U.S. received a 99-year lease on 5 percent of the territory, building docks and an airfield. Now the great British base is a freeport and museum, while the U.S. (and Canadian) bases are important antisubmarine defenses. But the naval air station, complete with U.S. customs and immigration facilities, is also a civilian field, and in the postwar years has helped the tourist trade boom. In 1984, 529,000 visitors came to the islands: 79 percent by air; and 88 percent of the visitors came from the U.S. The economy is diversified. Banks and international companies employ 6,000 people, as many as work in the hotels and restaurants.

Bermuda's major problem is space. Strict zoning laws have controlled building, but with a population density of over 3,100 per square mile much of the country resembles an extended village. Crowding is worsened by the 42,000 motor vehicles (half of them scooters) allowed on the islands since 1946. To address the problem of overcrowding, Bermuda has been engaged in a family planning program since the 1940s. As a result, between 1960 and 1980 the crude birth rate was halved and rapid population growth was checked (during the 1960s population grew by 23 percent, but in the 1970s by only 3 percent).

As Bermuda moves toward full independence, its outlook seems optimistic. With strong trade links to its neighbors and a flourishing economy, the islands will probably remain politically and socially stable. Bermuda shows how a small state with limited resources can develop its geographic advantages to provide a high standard of living for all.

Richard Weil received his PhD in geography from Rutgers – the State University. He lives in Bloomington, Minn.

Richard Weil

POPULATION TODAY

Vol. 15, No. 6 June 1987

FEATURES

3 PAA went to Chicago

1,100 demographers descended on the Windy City to speak, listen, confer, and mill at annual population meeting

4 Sadik named to head UN Fund for Population Activities

Physician and family planning specialist is the first woman to lead a UN specialized agency; her appointment follows Rafael Salas's death

4 The future of AIDS may (or may not) be exponential

Researchers differ on the dynamics of the disease's spread — and how promiscuous a person has to be to contract and spread the fatal virus

5 About 27 percent of Turkey's women use modern contraception (as of 1983)

Government survey cites inadequate contraceptive supply; national population program is two decades old

DEPARTMENTS

2 From the editor's desk

2 Speaking graphically

5 Survey report (Turkey)

9 Softwhere

9 Population update

10 Take a number

11 Current readings

You're never too young to attend a PAA session. (See page 3.)

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FROM THE EDITOR'S DESK

Once again, Barbara Walters failed to interview us. And altogether, news coverage of this year's annual meeting of the Population Association of America seemed modest compared to the importance of the subjects at hand – China, the marriage crunch, population growth, etc. (though covered by *PT*; see facing page).

All of which brings up the question of population vis à vis that traditional national whipping-person: the working press. There are a number of valiant ink-stained scriveners out there who toil in the population vineyards, as well as a larger number who write on social and economic statistics. But from many journalists' vantage, the world is a place of newsy cataclysmic events, not ambiguous, sneakily gradual trends like population.

The media perform the public service of getting vital information to the public at large. Sometimes, population news is vital information, and when it is, it may behoove journalists to heighten their appetite for numbers. Population people, for their part, might try being a little more helpful and more publicity-conscious: a news release desk at the next PAA meeting, perhaps, or snappy one-page summaries of recondite research, available on demand. As incentive, imagine yourself on the TV-light-flooded couch, intoning those magic words: "Well, Barbara, what we're seeing is . . ."

– Art Haupt

SPEAKING GRAPHICALLY

AIDS Case Reports in the U.S., 1979-1986

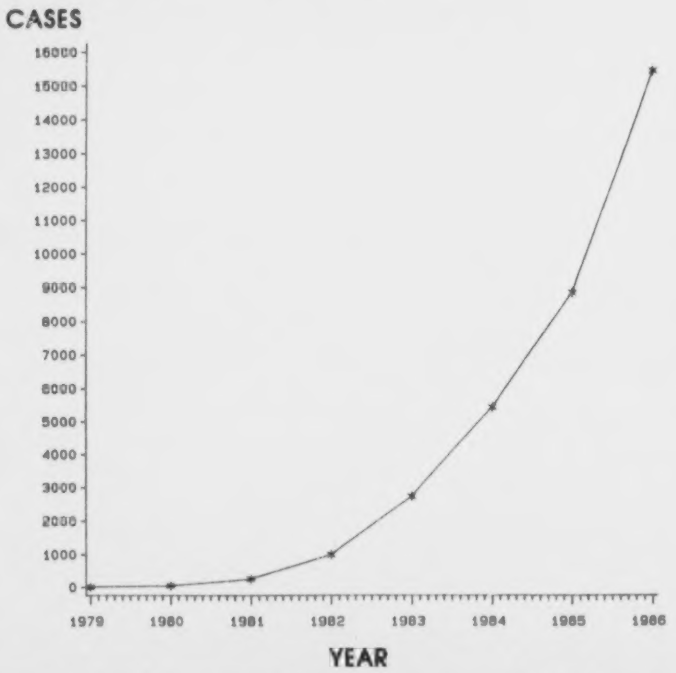

Figure from Richard G. Rogers and Robert Hackenberg, University of Colorado, "Extending Epidemiologic Transition Theory: A New Stage," paper presented at PAA annual meeting, 1987. Data are 1986 estimates from Centers for Disease Control.

POPULATION
TODAY

VOL. 15, NO. 6 **June 1987**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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*Educators and students should send supporting documentation.

Demographers Converge on Chicago

The gardens of the Great Midwest had barely begun to bloom when some 1,100 demographers and populationists came out of hibernation and promptly descended on the U.S.'s "Second City" (actually, third, now). They came to attend the annual meeting of the Population Association of America (PAA) (main sessions April 29-May 2).

They came for the papers; they came for the speeches; they came for the usual welter of socializing and buttonholing. Despite all the resulting activity within the friendly confines of the Chicago Marriott on North Michigan Avenue, this year seemed to find the PAAers in a more easygoing mood than usual – due, perhaps, to being closer to the U.S.'s geographical center of population – the center of everything. At any rate, arguments pitting population against development, so evident in the mid-1980s, now seemed to recede a little into the background; applied demography was in the bracing spring air.

What follows is a smattering of the sessions and discussions during that eventful week.

Pre-meeting Meetings

APLIC. The 20th annual conference of the Association for Population/Family Planning Libraries and Information Centers-International (APLIC) focused on the Ins and Outs of Health and Population Data. Sessions highlighted access to government-generated information (keynote address); electronic access to population data (panel presentation); and adolescent fertility data. During the panel presentation, Steve Laue (U.S. Bureau of the Census – Chicago office) reported that the Bureau is in the process of evaluating CD ROM (compact disk, read-only memory) in its overall scheme of data and statistics distribution – with an eye toward the 1990 Census.

Adolescent fertility was covered from three perspectives. J.J. Card, sociometrics project director of the Data Archive on Adolescent Pregnancy and Pregnancy Prevention (DAAPPP) summarized the archive's components, procedures, and products. Stanley Henshaw of the Alan Guttmacher Institute (AGI) discussed measures of adolescent pregnancy by contrasting the measurement schemes of AGI, Centers for Disease Control (Atlanta), and National Center for Health Statistics (NCHS). And Stephanie Ventura (NCHS) followed with a detailed review of NCHS's teenage birth statistics sources and uses, reporting that the Certificate of Live Birth will be revised in 1989 to incorporate birthing center information, complications of labor and delivery, obstetric procedures, etc.

> At PAA, brouhahas were less evident, the mood easygoing.

Psychosocial Workshop. Describing themselves as "a subversive cell within PAA," some 60 devotees of the Psychosocial Workshop gathered for this year's 15th pre-PAA, two-day round of traditionally lively talk about ongoing research. Workshop co-founder Henry David (Transnational Family Research Institute) presided at a session of reports by psychosocialists from Mexico, Denmark, Thailand, England, and California on innovative fertility-related research (much of it impossible to conduct in the United States).

In a keynote paper, famed longtime family planning promoter Donald Bogue (Social Development Center, Chicago) called on "true believers" still concerned about rapid Third World population growth to have the courage to say out loud that "two children are enough" and that ultimate world population should stop 5 billion short of what is now projected.

Also featured were user-research findings on the enthusiastic acceptance and very low failure rates of Norplant implants – one of the few contraceptive methods developed in the past 20 years, which has been used in 31 countries (including the U.S.) and is now marketed in seven – and a call for a return to qualitative research (focus

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How Epidemic Is AIDS?

The scourge of AIDS has increased to some 35,518 cases in the U.S. as of May 11, 1987 to become the disease most feared by Americans.

Medical experts agree that a vaccine is unlikely until the 21st century. In the meantime, controversies swirl in the U.S. about how widespread (or mandatory) a blood test for AIDS should be, or whether public health messages should emphasize condoms or abstinence.* "AIDS has killed off the one-night stand," as one interviewed single woman told a TV reporter.

Since the first recorded U.S. AIDS case in 1981, the growth of AIDS cases has been exponential (see "Speaking Graphically," page 2). So the principal question remains: How rapid will the future spread of AIDS be? And could AIDS's own dynamics cause its spread to level off at some point?

No one knows the answers yet. But like other diseases, AIDS has to be transmitted. And if one victim transmits it to a total of more than one other person, the disease's incidence will increase at a geometric rate indefinitely. On the other hand, if one person transmits it to *less* than one person, its incidence will in all likelihood level off and decline. In the long run.

Researchers Robert May (Princeton University) and Roy Anderson (Imperial College, London) argue that, based on the precedent of a model of gonorrhea spread in which the venereal disease is maintained by a core group of sexually active people while spreading only fitfully to the less sexually active outside this subpopulation, the exponential phase of AIDS could moderate. Then the next question would be: How promiscuous does one have to be in order to get and spread the disease?

AIDS is not a particularly contagious disease; considerable sexual contact, or sharing of blood or drug needles, is usually necessary to pass on the virus. Two vital variables in the AIDS statistical equation remain unknown: the percentage of those infected by AIDS developing the disease, and the incubation period of the disease in their systems before it becomes active. A study of a small group of AIDS-infected San Francisco homosexuals suggested that 36 percent of them contracted the disease within seven years. British researcher Malcolm Rees calculates a possible 15-year average time between infection and development of AIDS. May and Anderson's own calculations show an interval of more than five years for the incubation period.

A potentially significant finding was reported in late May 1987; that the rate of U.S. military recruits testing positive for AIDS had remained steady between October 1985 and December 1986 at 0.15 percent, instead of increasing as had been expected. While the reasons are not yet clear, the most optimistic interpretation would be that it is an indication that AIDS transmissions are leveling off.

The World Health Organization presently estimates that there are 100,000 cases of AIDS worldwide, with another 5-10 million infected but presently asymptomatic. *—A.H.*

**Pleas for sexual abstinence outside of marriage have a large audience to appeal to, incidentally; nearly a third of the U.S. population—69 million—consists of unmarried people 18 and older.*

Sadik Named New UNFPA Director

Nafis Sadik

Dr. Nafis Sadik, a 25-year veteran of the population field, has been appointed the Executive Director of the UN Fund for Population Activities (UNFPA), following the death of the founding Executive Director, Rafael M. Salas, on March 3, 1987.

Sadik's appointment makes her the first woman to hold such an influential and politically sensitive post in the United Nations. She is also the first woman to lead one of the UN's specialized agencies.

Sadik joined UNFPA in 1971, became Assistant Executive Director of UNFPA in 1977, and in 1982 was given the rank of Assistant Secretary General.

A native of Pakistan, Sadik served in the family planning and health field in that country for some 17 years, rising to Director General of the Pakistan Central Family Planning Council in 1970. As Director General she was responsible for planning and directing the national family planning program, including coordination of all clinical and biomedical research, and monitoring, planning and utilization of foreign assistance, policymaking, management, and evaluation.

Sadik has written a number of articles for leading publications in the family planning and health field, and edited a book, *Population: The UNFPA Experience* (New York University Press, 1984).

Sadik in turn is being succeeded as Assistant Executive Director of the UNFPA by Tatsuro Kunugi, previously the Special Representative of the Secretary General for Coordination of Kampuchean Humanitarian Assistance Programmes, a title he held from 1984 to 1987. Kunugi, a Japanese national, was Consul-General of Japan in Frankfurt from 1983 to 1984 and the Minister in the Permanent Mission of Japan to the International Organizations from 1976 to 1983. *—J.A.*

SURVEY REPORT

Turkey

Demand for family planning services in Turkey exceeds current availability, according to the results of the 1983 Turkish Population and Health Survey. The survey of 5,398 ever-married women under age 50 is the fourth such survey in Turkey since 1968. While the results show that both knowledge and use of contraception have increased, the majority of contraceptors rely on traditional practices such as withdrawal.

Concern about rapid population growth led the Turkish government to enact a Population Planning Law as early as 1965, establishing federal support for family planning. In 1983, a new law was passed easing curbs on sterilization and pregnancy termination. But the results of the Turkish 1985 Census show that the population, now exceeding 50 million, has grown faster than anticipated, suggesting that more government action may be needed to lower birth rates. Also, world economic recession in the early 1980s prompted many Turks working abroad in West Germany and other European countries to return home, contributing to population growth.

Although almost three-fourths of the survey respondents said they wanted only 2 or 3 children, the actual fertility rates measured an average of 4.2 births per woman for the 1978-1983 period. This was a decline from the 4.6 average for 1974-1979. Fertility has remained stubbornly high in eastern Turkey, where women average nearly 7 births, compared to a low of 3 lifetime births per woman in the western region.

Contraceptives are commonly used in Turkey. The percent of currently married women under age 50 using birth control increased from 50 percent in 1978 to 62 percent in 1983. But about one-half of this increase is due to a greater reliance on withdrawal, used by 49 percent of the women practicing family planning. Over 90 percent of the women surveyed were familiar with at least one modern contraceptive method, yet only 27 percent were using one in 1983. About one-third of these women were using the pill, another third the IUD, and 19 percent used the condom.

PRB/Elaine Murphy

The new generation in Cappadocia, Turkey

The report cited inadequate supplies as a major reason for the low use of modern methods, especially in the more rural eastern regions, where women depended more heavily on health or family planning centers, often far from home, for condoms and IUDs. Throughout Turkey, pills are usually purchased at pharmacies.

The prevalence of traditional methods and an increasing abortion ratio, measured at 25.6 abortions per 100 live births in 1983, indicates a high unmet demand for family planning services. Fully 78 percent of the ever-married women said they did not want any more children.

The 1983 survey measured a high infant mortality rate, 112 deaths per 1,000 live births for the 1981-1982 period. Although most Turkish women breastfeed their babies for at least the first year, enhancing infant nutrition, other traditional practices have been linked to higher infant mortality. Among these is the relatively large proportion of childbirths assisted by untrained attendants, particularly in rural areas. While in urban areas, 83 percent of the last births to respondents were attended by trained medical personnel, in rural areas that figure was only 43 percent. In eastern Turkey, only 34 percent of births were assisted by trained medical personnel; 44 percent were aided by neighbors or relatives.

Most Turkish women swaddle their babies, the survey reported. About 14 percent still pack earth into the swaddling cloth before wrapping the infant up, a traditional practice which can cause serious infection. In the eastern and central regions just over 20 percent of the women still use earth to swaddle their babies.

The survey report, published by the Turkish Institute of Population Studies, Hacettepe University, concluded that improvements in the education and status of women would enhance their acceptance of family planning and contribute to healthier lifestyles. Despite an upswing in the percentage of young women completing primary school, 41 percent of the survey respondents were illiterate and less than 10 percent had a secondary or higher education. Perhaps because of their low educational level, most Turkish women marry very young, and the average age at marriage, 17.6 years in the 1983 survey, may have declined since 1978.

—M.K.

Chicago glimpses: city skyline; PAA President Ronald Lee; Charles Westoff and Gorden De Jong.

PAAers in Chicago

Continued from page 3

group samples, ethnographic studies) to provide context for the quantitative data that now consume population researchers, though one participant objected: "They won't believe you without the numbers."

Sessions

Nonmarital Sexuality and Fertility in the Third World. Two session papers stressed understanding terms which might normally be thought of as discrete variables: married or nonmarried. In some African countries, for example, a couple's union might not be solemnized by ritual for a considerable time after they have entered into a consensual union; nonetheless, they will be considered married by the community, and children born of the union will be considered legitimate. Such status may or may not be reflected in national or international studies, according to researcher Margaret Rwabushaija (Univ. of Pennsylvania). Similarly, Katherine F. Darabi (Columbia Univ.) cautioned that in Latin America, marital status might indeed vary by self-report, official country categorization, or definitions of the World Fertility Survey.

Acceptability of New Contraceptive Methods. According to several studies, among the birth-control characteristics most desired are freedom from side effects, safety, efficacy, ease of use, and duration. One suggestion was to search for additional ways of discovering the extent of side effects, perhaps by consulting traditional healers or community confidantes. The audience agreed that the acceptability of female contraception would be enhanced by greater participation of women in the development, testing, and marketing of family planning methods.

Family Change in Western Countries. Via the literary device of a Traveler in Time, Peter MacDonald (Australian Institute of Family Studies) analyzed the past 20 years and what might strike a time traveler who last saw the world in 1967. Said traveler would be surprised by the great number of people living together without intending to marry, the widespread delay of childbearing, the high divorce rate, and the large number of people living alone. These now-accepted social changes have given greater control to individuals and families.

The USSR's life expectancy dropped 1.26 years from 1970 to 1985

Social Policy in Aging Populations. The population debate of 1987 came full circle when an official representative from the Singapore Ministry of Health, Paul P. L. Cheung, spoke on Singapore's problems with an aging population. A policy to increase fertility has recently been adopted to counter the large proportion of aged, projected to be 22 percent by early next century. The government has instituted a compulsory retirement-savings scheme whereby an employee contributes 25 percent of his salary to a retirement account managed by the government, with the employer contributing another 10 percent of his salary, for a total of 35 percent. It is not dependent on intergenerational cost subsidies, which is important as the old age ratio increases. Concerns, however, probably exist as to how to protect such large accumulations of funds from government tampering.

The Future of Marriage. Earlier work by David E. Bloom (Harvard Univ.) and Neil G. Bennett (Yale Univ.) in this area had made media headlines by forecasting gloomy future marriage prospects for women 30 and over, culminating in the bold prediction that women of this age group were more likely to be killed by a terrorist than to find a marriage partner. Their work had been followed by analysis by Jeanne E. Moorman (U.S. Census Bureau) which indicated a much more agreeable scenario for future marriage prospects. (See Sept. and Oct. *PT*.)

As the session audience, which included members of the media, waited in anticipation, the expected fireworks fizzled when Bloom decided not to reveal his and Bennett's new research figures as had been originally intended.

Their justification for withholding their revised figures was twofold: (1) a media effort to paint an adversarial relationship between their work and that of the Census Bureau, and (2) the fact that the figures from their model were very new and had not yet been completely checked by both authors.

Computers. Nancy J. McGirr (Westinghouse) evaluated six of the most used population projection packages relied on by demographers. Statistical package and data vendors were much in evidence. Donnelly Marketing presented Conquest, its slick CD ROM system, which had not only 1980

Norman Ryder accepting the Irene B. Taeuber Award; Dudley Kirk and Henry Shryock; attendees wend the exhibit area.

Census data but 1970 as well, including a host of demographic, economic, and social variables down to the tract level. This system produces maps, charts, and reports for any tract or Zip Code in the U.S. And the optical data disk containing all these data can be held between thumb and forefinger.

USSR. Diehards who stayed on for the Saturday afternoon sessions were rewarded by W. Ward Kingkade's (Census Bureau) revelation of just-received data on life expectancy in the USSR through 1985-1986, the first to be officially reported since the early 1970s. An overall life expectancy of 67.41 years in 1985 was down by 1.26 years from 68.67 in 1970. The gender gap in 1985-1986 figures between males (64 years, the same as 1958-1959) and females (73, unchanged since 1972) may be the highest in the world.

AIDS. AIDS was just touched on in sessions and papers on other topics at this year's PAA, though it was the subject of a Friday luncheon roundtable chaired by Virginia Cain (National Institute of Child Health and Human Development [NICHD]). AIDS has changed the pervasive view that sex is not an appropriate field for scientific research and also calls for more research on condoms, said Wendy Baldwin (NICHD) in a session on U.S. contraceptive use. Earlier, Gloria Kamenske (also NICHD) reported that funding is relatively abundant for research on sexually transmitted diseases, which includes AIDS.

Women's Caucus. At this Thursday noon-hour meeting it was suggested that PAA women should take on the responsibility of humanizing the PAA "culture" – introducing some participants "in touch with the real world" in order to liven the program which was described as "stiff, square, boring, cerebral, unemotional, and dominated by technology-driven males." However, one female PAA attendee elsewhere praised the meeting as "far more exciting than the American Economic Association."

Themes

Past PAA meetings have appeared to have if not formal, then discernible informal themes. Ten years ago, the theme might have been Easterlin vs. Westoff debating an imminent U.S. fertility rise or absence thereof. Data from the World Fertility Survey dominated a subsequent meeting; the population/development connection preoccupied one or two others.

By contrast, the themes running through the Chicago meeting seemed less clear. There were, however, several exhortations to merge quantitative and qualitative methods. The earlier perceived incompatibility of the two approaches had given way to mutual – if distant – respect; this year, many studies presented data in which the multiple regressions and chi-squares were bolstered by focus group reports and conversational interviews.

Demographers in the Courtroom. One issue that arose in several different contexts is the role of demographers as expert witnesses in litigation. In the session on "Issues in State and Local Demography," Felix D'Allesandro (Assistant State Demographer, State of Washington) emphasized the importance of setting forth one's assumptions regarding demographic work, particularly in population estimates and projections.

At the luncheon round table on Friday, "Demographers as Expert Witnesses," the issue of demographers' liability arose again. One pertinent comment was the observation that economists appear in court more often than demographers and yet do not appear to need liability insurance.

One question raised by several people at the round table is the impact that the new American Sociological Association (ASA) certification process might have for demographers who appear in court as expert witnesses. Will judges and juries give a certified ASA demographer more credence than one who lacks this certification?

In another session, "The Politics and Ideologies of Population Issues," Harvey M. Choldin (Univ. of Illinois at Urbana-Champaign) discussed the prospect of the courts settling issues like the census undercount (e.g., New York City's suit against the Census Bureau), with the conclusion that courts are a very poor arena for settling scientific issues because of their innately adversarial nature.

Applied Demographers. In his remarks at the Annual Breakfast sponsored jointly by PAA's Committees on State and Local Demography and Business Demography, PAA President Ronald D. Lee (Univ. of California, Berkeley) noted that the applied area was PAA's most rapidly growing and dynamic subfield. The breakfast was attended by more than 100 early-rising number crunchers interested in the application of demography in business, the public sector, and other nonacademic settings and featured talks by Lou Pol (Univ. of Nebraska, Omaha) on demographic consulting for small businesses and a report on the survey of applied demographers by Dave A. Swanson (Bowling Green State Univ.)

Continued on next page

Friday roundtable lunches; Barbara Wilson, Kingsley Davis, and Nelly Van den Oever; overhead transparency.

PAAers in Chicago

Continued from preceding page

and Hallie J. Kintner (General Motors Research Laboratories).

The two committees also sponsored a well-attended evening wine-and-cheese mixer, followed by a panel session on careers for demographers in nontraditional settings organized by Lisa Olson (Bell Atlantic) and featuring Pol, Carol Shuchman (New York Port Authority), Rena Cheskis (Yale Univ.), and Jeff Tayman (San Diego Association of Governments). One reason for schools' growing interest in applied work is job placement for their demography students. A number of universities are adapting their demographic study programs to prepare students better for applied work.

At a lively session entitled "What Demographic Data Vendors Are Doing for/to Demography," *American Demographics* editor Cheryl Russell challenged demographic data vendors to let clients in on the methodology driving their updates for small areas, while data user David Glazer (Sales Evaluation Associates, Inc.) presented a list of 10 commandments for data purchasers and explored areas of ignorance on both the client and vendor side of the demographic data counter. The session on "Demography in Business" presented demographers working with business clients with the double challenge of getting across their bottom line demographic message to clients while explaining to their professional colleagues how they arrived at that message, all in less than 20 minutes. Discussant Bryant Robey (East-West Population Institute) cautioned his colleagues against over- or mis-selling demography lest it become just another marketing fad.

Some different twists on population policy questions emerged in at least two sessions, including one using policies other than family planning to affect fertility in LDCs and another on the politics and ideology of population issues. In the first session, papers by Sara Millman (Brown Univ.) and by Kenneth Chomitz (National Academy of Sciences) and Nancy Birdsall (The World Bank) cataloged divergences between individual and social costs of childbearing and the uses and limitations of incentives to bridge the gap between the two, while Terence H. Hull and Quan-He Yang (Australian National Univ.) emphasized the importance of understanding population policy in the context of broader political and economic changes in China and Robert W. Gillespie (Population Communication) poetically described the application of marketing principles in Indonesia and Thailand to generate commitment to family planning.

Awards and Presidential Address

The Dorothy S. Thomas Award for best graduate student paper on migration or economic-demographic relations was presented by Julie DaVanzo of the Rand Corporation jointly to Zeng Yi, currently the Frank W. Notestein postdoctoral fellow at Princeton Univ.'s Office of Population Research, and Andrew D. Foster, Ph.D. candidate in economics at the Univ. of California, Berkeley.

The Irene B. Taeuber Award, recognizing a career of distinguished research in demography, was presented by Linda J. Waite, also of the Rand Corporation, to Norman Ryder (Office of Population Research at Princeton Univ.). The citation mentioned Ryder's significant contributions in highlighting cohort analysis as a vehicle for understanding social change and his many insights into linkages between cohort and period behavior.

PAA President Ron Lee demonstrated in his presidential address what comes of crossing a philosopher with a mathematical demographer energized by a vigorous swim. Entitled "Population Regulation Among Humans and Other Animals," his address linked long-run trends in human population growth to the experience of other animal populations via the process of "homeostasis," i.e., the tendency of species to maintain internal stability through a system of responses that compensate for environmental changes.

For most of human history, the relevant environmental conditions were those relating to such basic needs as food and shelter, and population growth was slow enough to suggest that humans share homeostatic adaptivity with other animal populations. Malthus incorporated this notion in the negative feedback theory that he used to explain population swings in preindustrial populations, and Lee's own work with mathematical simulation of links between preindustrial population movements and food prices in Europe supports a homeostatic view of most of human population history. Evidence for the period of very rapid growth that the human population has experienced since the 19th century is much more difficult to assess. But even if this experience represents an exception to homeostasis, Lee's view is that over the long run, environmental limits will re-emerge.

Sidebars

The Annual PAA Fun Run gained new stature this year when PAA President-Elect Reynolds Farley (Univ. of Michigan, Ann Arbor) showed up to witness the 7 a.m. Saturday start. In coat and tie, he wished the assembled multitudes well before going off to indulge in breakfast while a dozen-plus stalwarts (down two dozen from the previous year) galloped along the Chicago lake front.

On the party scene, the 46-story Marriott was comfortable and capacious, but insisted on being the sole beverage supplier for a major party held in a downstairs meeting room, a situation that demonstrated that monopoly does not maximize distribution.

Perhaps the liveliest party was one held to honor Marta Tienda as the new director of the Univ. of Chicago's Community and Family Study Center, succeeding Donald Bogue, which began at noon Friday on the hotel's top floor and was still going strong at midnight.

This was the first PAA annual meeting in some years without Lone Star longnecks in evidence.

As at every PAA meeting, some popular sessions unavoidably ended up being held in closets; small-attendance sessions were presented in giant ballrooms (where every dais had its own bowl or two of hard candy, courtesy of the hotel). Copies of papers and handouts were predictably in short supply, and assertive audience members sometimes had to charge up the aisle to pluck handouts from the hander-outers.

This was the first year of a three-year experiment with Saturday afternoon sessions, which ended at 3:20 p.m.

Gordon De Jong (Pennsylvania State Univ.) was appointed editor of *Demography* for a three-year term. He will succeed current editor Ann Miller (Univ. of Pennsylvania), beginning in January 1988.

PAA Affairs also has new editors, effective Spring 1987: Marilyn McMillen (National Cancer Institute) and David McMillen (U.S. Census Bureau). They succeed Jeff Evans (NICHD).

The word "econometric" (describing statistical economics, or economic statistics) seemed to echo through a number of sessions. This year's buzz word?

Next year PAA meets in New Orleans.

—compiled by Bob Gardner, Art Haupt, David Lamphere, Tom Merrick, Denise D. Dowdell, Elaine Murphy, Bill O'Hare, Wendy Patriquin, Nelly Van den Oever, Jean van der Tak, Dorsey Vera, Alex von Cube, and Nancy Yinger. Kingsley Davis group photo by Jean van der Tak; other photos by Art Haupt.

SOFTWHERE

The United Nations Population Division offers several demographic software programs written for the IBM PC. The newest is MORTPAK-LITE. This program produces routines of indirect techniques for mortality analysis. There are 16 routines to choose from, including seven on life tables and five for various mortality measures.

Some of the routines: estimation of single-year probabilities of dying for ages under 5; calculation of a stable population based on age-specific death rates and the intrinsic growth rate; and indirect estimation of male and female adult mortality from data on proportion of the ever-married population. The package is menu driven, which guides the user though a very logical choice of instructions.

MORTPAK-LITE is not copy protected and runs on an IBM PC or compatible personal computer with at least 384K of memory and two 360K disk drives or a hard disk. The standard version requires a math co-processor, but versions can be ordered without this requirement. The program was prepared by the UN's Population Division in cooperation with the Software Development Group of the Dept. of Technical Cooperation for Development. For further information contact: Director, Population Division, United Nations, New York, N.Y. 10017. *—D.L.*

POPULATION UPDATE

Estimated United States Population:

As of January 1, 1987	242,742,000
As of January 1, 1986	240,523,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1002.

Estimated World Population:

As of May 1987	5,019,000,000
Annual growth	87,000,000

Estimated by extrapolation from the mid-1987 population on PRB's *1987 World Population Data Sheet.*

Latest Provisional Statistics for the U.S.: January 1987

	12 months ending with January					
	Number		Rate			
Item	1987	1986	1987	1986	1985	1984
Live births	3,712,000	3,746,000	15.4	15.7	15.6	15.5
Deaths	2,095,000	2,082,000	8.7	8.7	8.7	8.6
Natural increase	1,617,000	1,664,000	6.7	7.0	6.9	6.9
Marriages	2,393,000	2,430,000	9.9	10.2	10.5	10.4
Divorces	1,148,000	1,189,000	4.8	5.0	4.9	5.0
Infant deaths	38,600	39,400	10.4	10.6	10.7	10.9
Population base (in millions)	...	...	241.1	238.5	236.3	233.9

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source. Monthly Vital Statistics Report (Vol. 36, No. 1) from the National Center for Health Statistics.

TAKE A NUMBER

Census Report on U.S. Black Population: The Census Bureau has issued a report, based on 1980 Census data, which provides a central source of data on blacks in the U.S. A "Supplementary Report" of the 1980 Census, *Summary Characteristics of the Black Population for States and Selected Counties and Places: 1980*, shows that the black population increased from 11.1 percent of the total U.S. population in 1970 to 11.7 in 1980. In the South Region, however, the proportion of blacks decreased from 19.1 to 18.6 percent over the same period. Counties with the highest proportion black were all located in the South; the top three were Macon Co., Ala. (84 percent), Jefferson Co., Miss. (82 percent), and Hancock Co., Ga. (78 percent). Mound Bayou, Miss., had the highest percentage of places of 2,500 or more, with 99.7 percent black. Labor force participation rates for blacks were highest in Inglewood, Calif., 79 and 70 percent for males and females, respectively, and lowest in East St. Louis, Ill. (58 and 42 percent). Blacks with the highest family incomes lived in the suburbs of Washington, D.C.; salaries averaged about $23,000 in both Montgomery and Prince George's Counties, Md.

Well, Yes: "Does this mean that we have to be concerned about world population growth *again*?" PRB's press release accompanying the *1987 World Population Data Sheet* contained the news that, due to an increase in China's birth rate during 1986, the total world birth rate has actually increased. Many of the followup phone calls from the media and interested public were revealing of the way in which world population trends are generally perceived. The above question approximates the tenor of the public response to the possibility of continued world population growth. While our treatment of the world population situation has become more refined in some ways than the more simplistic approach of the 1960s, it is interesting to see the way public perception changes. There has, after all, been little change in actual trends of world population for quite some time. The same could be said of Toxic Shock Syndrome, Sudden Infant Death Syndrome, Cambodia – all are problems which we hear little of today, but which are nonetheless still very much with us. Perhaps the answer is simply that a crisis can only hold our attention for so long.

Here and there . . . The U.S. milestone of 100 million in housing units was projected to occur this year; the chances favor the 100 millionth unit's being a single family residence in the South . . . the U.S. median age hit 31.8 in 1986, up from 30.0 in 1980. The 35-44 age group has been the fastest growing in the 1980s, while those 15-24 showed the largest decline . . . China reports that living standards improved from 1985 to 1986. Urban families enjoyed a 13-percent increase in real income, although the increase was much less for farm families, 3.2 percent. This was accompanied by a sharp rise in savings deposits . . .

And the answer is . . . watching a recent edition of *Jeopardy*, the U.S. television quiz show, we assumed a smug attitude when the topic turned to "World Population." The "answer" posed was: "With a birth rate of zero, this country is certain to remain the world's smallest state." "What is Pitcairn Island?!" we shouted, thinking that Fletcher Christian's descendants had had an unreproductive year. Not so, as the appropriate response was "What is Vatican City?" The contestant got it right for $400 and we didn't. Oh well, and all this education . . .

– C.H.

ADDENDA

The Hill

The Hill. We all talk about it. Saying, for example, that so-and-so is "over the hill." Assuming, of course, that one is not under it before going over it, the Hill is crossed by us all at some point. But what is it? Perhaps the best definition is the point on the life table when one's age is greater than the "average number of years remaining" or, put another way, one has landed past the halfway point of one's life, life-expectancy-wise. For the U.S. population the "Hill" resides at about 38.5 years; cross that point and it's a one-way trip down the old mountain. White females have the most climbing to do: their Hill doesn't come until 40.5, three years after white males. For black females, the Hill is right on the 38.5 national average, but for black males, it's an early 34.5.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

FAMILY PLANNING WITHIN PRIMARY HEALTH CARE, edited by F. Curtiss Swezy and Cynthia P. Green. Washington, D.C.: National Council for International Health, 1987. 114 pages. $10.95 for NCIH members; $12.95 for nonmembers (plus $2.50 for postage and handling).

This volume is an anthology of papers presented at a workshop sponsored by the National Council for International Health (NCIH) on March 12-14, 1986, for private voluntary organizations (PVOs) involved in the provision of primary health care in developing countries. The goal of the workshop was to underscore the importance of family planning as a significant maternal and child health care intervention and, by implication, to encourage PVOs to expand their activities to include family planning.

The workshop had both plenary sessions and panel discussions. Papers from both forums are included in this volume. The plenary papers are more interesting to the general reader, being less focused on the particular concerns of the PVO audience. For example, Dr. Allan Rosenfield's paper, "Health Aspects of Family Planning," summarizes both the World Fertility Survey findings about the positive influence of birth spacing on infant mortality and the crucial role family planning can play in maternal health programs. Dr. Fred Sai's paper, "Ethical Issues in Providing Family Planning within Primary Health Care," also gives a good overview of ethical issues that countries (and PVOs) confront as they begin to provide contraceptive services, for example: Will contraceptive availability lead to promiscuity? Or should adolescents have free access to information and services and if so, with or without parental consent? The panel papers seem more designed to highlight points to be expanded in the small group discussions, but might be instructive to PVOs or others thinking of providing family planning services. The section containing brief project summaries provides a good array of the kinds of family planning activities that primary health PVOs are already undertaking.

The relationship between health and family planning is an important issue which is currently being emphasized in the population literature. This volume is a modest but nonetheless useful contribution to that literature.

—Nancy Yinger

THE NEW HEARTLAND, by John Herbers. New York: Times Books, 1986. 228 pages. $19.95. ISBN 08129-1128-4.

The U.S.'s "new heartland," according to *New York Times* correspondent Herbers, consists of new low-density areas that are a mixture of rural, suburban, and small-town population types and yet with the flavor of none of them: the "big new spread-out small town." (One modest example: State College, Pa., a bustling, economically diverse metro area of over 100,000 population that nonetheless manages to have a density of about one person for every six acres.) This dispersion is occurring in many places nationally, Herbers writes, because "Americans want space, not density." Now, thanks to new economic patterns and enhanced communications and transportation, they can have it—with many implications for the nation's economy, government structure, and political outlook.

—Art Haupt

PACIFIC BRIDGES: The New Immigration from Asia and the Pacific Islands, edited by James T. Fawcett and Benjamin V. Cariño. Staten Island, N.Y.: Center for Migration Studies, 1987. (Published in association with the East-West Population Institute, Honolulu.) 489 pages. $17.50 cloth; $12.95 paper. ISBN 0-934733-10-4.

This book provides an overview of the facts, theories, and trends concerning a major theater of international migration. In 19 articles, a group of Asian-migration researchers examine the scope and shape of immigration flows from Asia to the U.S. and other destinations; the changing immigration policies; and the impacts of these important population streams on both receivers and senders. It's important, the editors point out, to appreciate the complexities and diversities in the flows and counterflows of people, in an age when the Pacific Basin has seemingly become a pond.

—A.H.

Books Received

BIRTH AND FORTUNE: The Impact Of Numbers on Personal Welfare, 2nd ed. by Richard A. Easterlin. Chicago: University of Chicago Press, 228 pages. $12.95 paper.

THE HUMAN IMPACT ON THE NATURAL ENVIRONMENT, 2nd ed., by Andrew Goudie. Cambridge, Mass.: MIT Press, 338 pages.

RECENSEMENT GENERAL DE LA POPULATION ET DE L'HABITAT, 1987, by République Rwandaise. 7 volumes.
vol 1: Effectifs de La Population
vol 2: Activité Economique
vol 3: Fécondité - Mortalité
vol 4: Ménages et Habitat
vol 5: Secteur Urban
vol 6: Analyse
vol 7: Méthodologie

THE OWN-CHILDREN METHOD OF FERTILITY ESTIMATION, by Lee-Jay Cho et al. Honolulu, Hawaii: University of Hawaii Press, December, 1986. 188 pages. $25.00.

THE WORLD FACTBOOK NINETEEN HUNDRED AND EIGHT-SIX, by Central Intelligence Agency. Springfield, Va.: National Technical Information Service, 1986. 291 pages. $28.00.

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- ☐ Population, Resources, Environment, by Robert G. Repetto (forthcoming July, 1987)
- ☐ Europe's Second Demographic Transition, by Dirk J. van de Kaa

VOLUME 41 (1986)

- ☐ Demographics and Housing in America, by George Sternlieb and James W. Hughes
- ☐ World Population in Transition, by Thomas W. Merrick, with PRB staff
- ☐ Population Pressures in Latin America, by Thomas W. Merrick, with PRB staff
- ☐ Immigration to the U.S.: The Unfinished Story, by Leon F. Bouvier and Robert W. Gardner

VOLUME 40 (1985)

- ☐ Sub-Saharan Africa: Population Pressures on Development, by Thomas J. Goliber
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- ☐ Poverty in America: Trends and New Patterns, by William P. O'Hare
- ☐ Asian Americans: Growth, Change and Diversity, by Robert W. Gardner, Bryant Robey, and Peter C. Smith

VOLUME 39 (1984)

- ☐ Planet Earth 1984-2034: A Demographic Vision, by Leon F. Bouvier
- ☐ Israel's Population: The Challenge of Pluralism, by Dov Friedlander and Calvin Goldscheider
- ☐ The Business of Demographics, by Cheryl Russell
- ☐ Delayed Childbearing in the U.S.: Facts and Fictions, by Wendy H. Baldwin and Christine Windquist Nord
- ☐ Understanding U.S. Fertility: Findings from the National Survey of Family Growth, Cycle III, by William F. Pratt et al.

VOLUME 38 (1983)

Third World Family Planning Programs: Measuring the Costs, by Nancy Yinger et al.

- ☐ China: Demographic Billionaire, by H. Yuan Tien
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POPULATION TODAY

Vol. 15, No. 7/8 July/August 1987

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One million phantom Germans, and other enumeration tales

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Women average 6.0 total children (as of 1984-1985); culture discourages birth control

4 Response to U.S. amnesty program is light in first two months
Undocumented aliens taking a wait-and-see view, but border apprehensions show steady drop

5 Sustaining the world of the future will take a balancing act
Population, resources, and environment are closely linked, according to new *Bulletin*

6 How demographers live today
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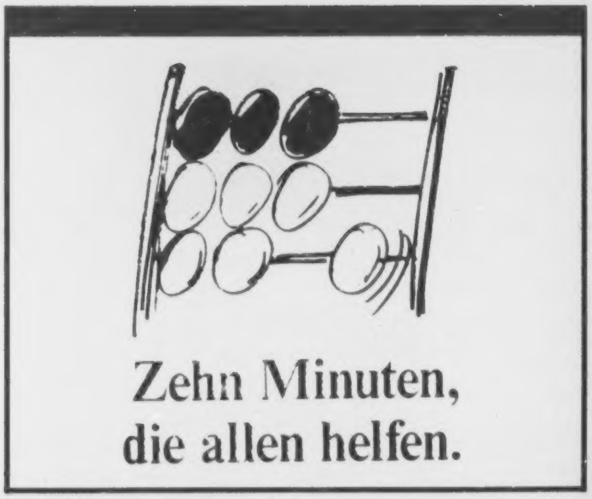

The 1987 West German Census logo and slogan: "Ten Minutes That Help Everyone." (See page 3.)

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FROM THE EDITOR'S DESK

July 11 is "The Day of 5 Billion"; so designated by the UN Fund for Population Activities.

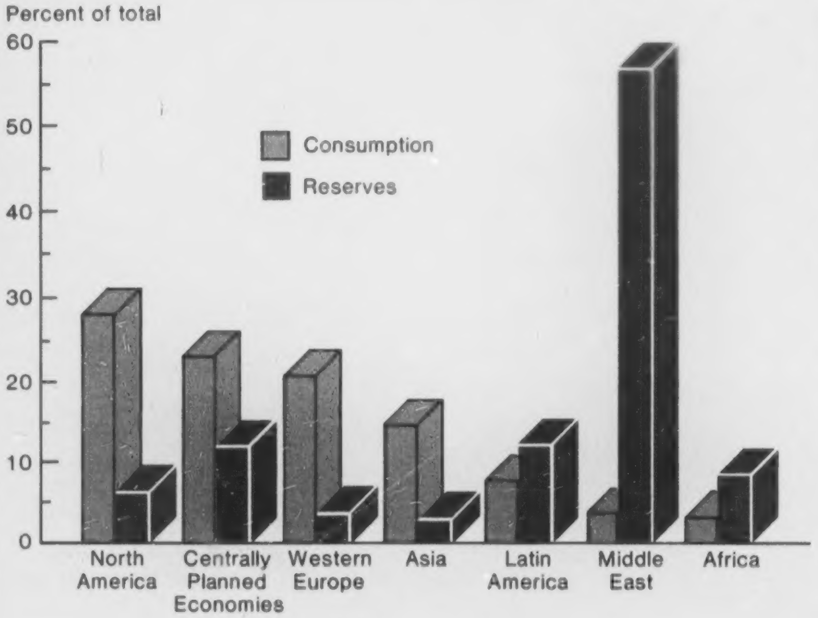
On that day the world is deemed to have reached 5,000,000,000 in population (reaching 5,000,000,001 a quarter of a second later). Rallies and meetings are planned, and at UNFPA's request, Seiko is presenting each head of state around the world a population clock showing global and national populations.

No one can say with certainty on what day the earth actually passed the 5-billion mark, but the UN's most recent estimates and projections point to the April-July period of 1987, and July 11 is as good a day as any: a peaceful Saturday to mark an event – reaching a new billion – that has only happened five times in human history (prior to this, around 1800, 1927, 1960, 1974), but which now happens nearly once a decade. Before you have settled down to the idea of a 5-billion world, 1999 will be here, and with it celebrations to mark the day of 6 billion. So it goes . . .

– Art Haupt

SPEAKING GRAPHICALLY

Regional Oil Consumption and Reserves: 1985



The Middle East's dominance of world oil markets has waned in the 1980s as high prices engineered by the Organization of Petroleum Exporting Countries (OPEC) cartel stimulated oil exploration and production elsewhere. But its preponderant share of world oil reserves, shown in the figure above, guarantees OPEC's ultimate comeback as the current glut in market supplies of oil inevitably disappears.

Source. Robert Repetto, "Population, Resources, Environment: An Uncertain Future," *Population Bulletin*, July 1987 (see article, page 5). Chart by Joanna Lawrence.

POPULATION TODAY

VOL. 15, NO. 7/8 July/August 1987

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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'Ten Minutes That Help Everyone'

After a 17-year hiatus coinciding with the dormancy of a certain well-known U.S. locust, the Federal Republic of Germany (West Germany) finally held a national census on May 25, 1987 – four years late.

The census was originally scheduled for April 27, 1983. But the massive head count was held up as citizen groups concerned about privacy, the growing influence of the computer, and the resultant intrusion by the state in the lives of German people petitioned the German Supreme Court to examine the census-taking process. And in its far-reaching "Census Decision" of Dec. 15, 1983, the High Court agreed that additional protective measures should be instituted. And while it upheld the census per se, it ruled that the census law of 1983 had violated certain personal rights, in particular the provision for comparing census-collected data on individuals with the entries for those same individuals in the national registration system.

The Census Process

Despite the delay, most of the questions originally planned in the census remained the same. Eighteen questions concerned the individual, 11 questions were about living arrangements, and four questions were for owners of buildings and a count of businesses and non-agricultural places of work. The questions included month and year of birth, sex, marital status, religious affiliation, citizenship, place of residence (including second residence), profession, source of income (but not the amount), education, and means of transportation to work.

An army of 600,000 enumerators was either recruited by newspaper advertisements or – in areas where the government was unable to attract enough enumerators – "designated" from the ranks of the civil service, rather like U.S. jury duty, with hardship cases excused (in Berlin, 15,500 civil servants temporarily became enumerators). Enumerators were paid modest wages.

Newspaper accounts reported widespread distrust on the part of many concerning the census and its confidentiality. The various protest movements against the census sparked renewed discussion about the method of census taking. Is a 100-percent enumeration truly necessary for the sake of accuracy?

Traditionally the answer is yes – a prerequisite for surveys is the existence of a denominator that will allow meaningful extrapolations to the universe. Despite that powerful argument, the census bureaucracy responded with amazingly colorless publicity featuring, as role models of citizen cooperativeness, veteran politicians spouting dull slogans urging conformity. This public-relations campaign probably heightened public fears rather than alleviated them.

In addition, the government proceeded with a heavy hand against those calling for a census boycott.

> 25 physical attacks on enumerators during the census were somewhat improbably ascribed to the influence of the terrorist Red Army Faction

"Exakte Angaben über die Heizgewohnheiten sind ein wichtiger Beitrag zum Umweltschutz. Schon aus diesem Grund bin ich dafür."
E. Piechullek, Schornsteinfeger
Volkszählung Mai '87
Zehn Minuten, die allen helfen.

The German chimney sweep is saying: "Exact information about home heating habits is an important contribution to environmental protection. It is for this reason alone that I am for the census."

Police searched apartments of citizens throughout Germany who were viewed as activists in some 1400 boycott organizations. They confiscated documents at various offices and bookstores where boycott initiatives supposedly originated. Hefty fines ranging from $3,000 to $4,000 were levied against members of the Green Party who took part in the boycott.

Criminal acts did occur, including the destruction of census tabulation equipment in a break-in in Freiburg, and arson at an enumeration office at Heilbronn. Demonstrations of several thousand people against the census in cities like Hamburg and Berlin took place as late as a week prior to the census.

There were 25 physical attacks on enumerators during the census – somewhat improbably ascribed to the influence of the terrorist Red Army Faction by Interior Minister Friedrich Zimmerman, who also found activities by members of the Green Party suspicious. The consensus among government spokespersons was that the hard core opposed to the census consisted of no more than about 2 percent of the people; but if true, that figure would comprise over a million Germans.

Nevertheless, the gap in terms of public confidence seemed to close somewhat as the May 25 date approached. According to public opinion surveys only 9 percent had serious misgivings about the census by the time the census was held. And when Census Day had passed, overall reaction by citizens was somewhat anticlimactic.

The postcensus tabulation is still in progress, with no deadline fixed for late filing of forms. The census makes a distinction between the anonymous information needed for census purposes and the identifying information needed to assure that all persons have been counted and quantified correctly; once the latter function has been satisfied, addresses and names which are entered on a cover sheet of each questionnaire are mandated by law to be destroyed ". . .at the earliest possible time."

Continued on page 8

Amnesty—Aliens Start Getting Their Red Cards

More than two months have passed since Amnesty Day, May 5.

In that time (as of June 26), 186,413 applications for legal status were received. (These included 12,522 applications for special agricultural workers.) These applications have resulted in 143,817 interviews granting temporary work authorization cards – the new "red card" (actually, a photo ID card with a red strip) that bestows legal status on formerly undocumented aliens.

Are 186,413 applications a lot or a little? With 107 application centers around the U.S., the turnout so far works out to about 45 or 50 applicants per center per day. In any case, no one has any idea how many undocumented aliens will step forward during the year of grace provided by the Immigration Reform and Control Act of 1986. The Immigration and Naturalization Service (INS) expects about 2 million applicants and is set up to handle up to 3.9 million.

An initial period of skepticism was expected until the procedure established a track record of trustworthiness and the numerous private groups (minority- and church-related) helping aliens got up to speed. And applications do seem to be increasing.

One reason for the slow start may have been concern about applicants being arrested, considering that INS's mission includes enforcing laws against illegal immigration. But the immigration law mandates confidentiality, and prohibits information from passing from the legalization program to enforcement (except in cases of fraudulent application).

Meanwhile, INS has delayed most enforcement of the employee sanctions from the beginning of June until July 1 at the earliest. This is because publication of application forms (the I-9) and the handbook guide to the law for employers is behind schedule. Nevertheless, employers are still

Continued on page 10

SURVEY REPORT

Pakistan

With a 1987 population of 105 million, the rapid growth rate of Pakistan, the world's 10th most populous nation, is of global significance. The population of this South Asian country has tripled since 1951, and with its current annual growth rate of 2.9 percent, it could double again in 24 years.

The results of the Pakistan Contraceptive Prevalence Survey, conducted during 1984-1985, offer only a glimmer of hope that Pakistani birth rates will begin a significant decline. The survey found that large families are still highly valued in this Moslem culture but also that family planning is gaining some acceptance. Women interviewed wanted an average of 4.9 children, slightly more than the 4.4 average recorded by the 1975 Pakistan Fertility Survey, part of the World Fertility Survey project. The mean number of living children increased from 3.2 in 1975 to 3.5 due to improved health conditions.

The total fertility rate decreased over the decade, from 6.3 to 6.0 total children per woman. Interestingly, under current mortality rates, women would need about 6 births to achieve their desired family size of 4.9 living children.

Most of the decrease in birth rates has been among younger women aged 20-29. Older women, over age 45, actually recorded much higher birth rates in the 1984-1985 survey.

Pakistani women are reluctant to use family planning, reflecting a strong cultural bias against birth control. According to surveys conducted since 1969, the percentage of currently married nonpregnant women using a contraceptive has fluctuated, from 5.5 percent in 1969 to 3.3 percent in 1979-1980 to 9.1 percent in 1984-1985.

There has been a shift toward more effective methods as well. In 1984-1985, 7.3 percent of women surveyed were using an efficient method, primarily the condom, female sterilization, and the pill, compared to only 3.8 percent in 1975. But these percentages probably underestimate the actual use of family planning in Pakistan. Because of social pressure or shyness, many women will not admit they use birth control. Fecund married women who wanted to stop childbearing and had successfully avoided pregnancy for five years but who would not say they used birth control were classified as "shy users." An estimated 7 percent of the currently married nonpregnant women were classified as "shy current users" of family planning, which, added to those reporting current use, suggests an overall contraceptive prevalence rate of 16.1 percent.

Only 62 percent of the currently married women interviewed said they knew at least one contraceptive method. Even in the major urban areas, only 70 percent knew a method. The level of knowledge is quite low compared to most countries (for example, 95 percent of Bangladeshi wives knew a family planning method in 1979). "Shyness" about admitting knowledge of contraceptive methods probably contributes to the low percentages; nevertheless, these low percentages demonstrate the enormity of the task faced by family planning program coordinators trying to increase awareness and use of birth control.

– M.K.

Wise Management is Key to Sustainable Population/Resource/Environment Balance

By adopting proven management programs to slow population growth, boost resource productivity, and preserve environmental quality, responsible governments can make the difference in the future global balance of population, resources, and environment, says Robert Repetto in PRB's latest *Bulletin* for July.

The links between these three variables are "too complex to permit straightforward generalizations about direct causal relationships," he warns in "Population, Resources, Environment: An Uncertain Future." But government policies play a large role in mediating those relationships and could be the key to a sustainable future at a decent standard of living "for all the world's peoples."

Repetto, who is Senior Economist of the World Resources Institute in Washington, D.C., points out that rapid population growth in developing countries has accounted for more than 85 percent of the doubling of world population since 1950 (from 2.5 billion then to 5 billion in 1987). It will account for all but a small fraction of the final doubling of global numbers that the UN projects for the next century before stabilization at some 10 billion.

This rapid growth has exacerbated the problems of alleviating poverty, and poor households in the Third World are "virtually forced to overuse natural resources in order to survive," he says. In their wake lies a trail of eroded watersheds, vanishing forests and plant and animal species, growing deserts, and depleted inshore fisheries.

The demands of rich nations for beef cattle, tropical hardwoods, minerals, and oil also contribute to Third World resource and environmental pressures, he adds, and it is the developed countries, despite their much smaller populations, who use most of the world's resources – commercial fuels, metals, wood – and consume a large fraction of total cereals. Directly and indirectly, the average, meat-addicted American consumes enough grain to feed four Indians.

The future interactions of population, resources, and the environment are uncertain as well as complex, Repetto says. The current UN medium estimate of an ultimate 10.2 billion world population could easily be off by several billion. Uncertainty about future technological progress and energy conservation also pervades long-range projections of resource demand and supply. For example, recent projections of annual world energy consumption in the period to 2050 vary from more than five times the 10.3 trillion watts consumed in 1980 down to half that figure.

Similarly, progress in genetic engineering is "likely to make long-run forecasts of agricultural production based on existing technologies highly unreliable." Even with current farming methods plus cultivation of all potential cropland, grain production could be boosted to 10 billion tons per year, three times the current level, to feed a population of 10 billion and improve Third World diets, Repetto believes.

Developing countries such as Brazil, Korea, and Singapore, which possess enough industrial and scientific capacity to take advantage of internationally mobile capital and technology, are catching up with advanced countries in productivity and living standards, Repetto says. The poorest countries, such as Sudan and Bangladesh, are not catching up and could fall economically and environmentally further behind with projected future doubling and trebling of their populations. Growing natural resource pressures and the need to stretch investment funds to provide jobs for increasing labor forces and infrastructure for expanding cities will make it much harder for them to preserve the environment than it is for rich countries with barely growing or declining populations.

But Repetto's *Bulletin* also relates success stories that show maneuvering room still exists. Since 1977 China has sharply boosted fuelwood supplies by permitting households and cooperatives to plant some 50 million hectares of trees on uncultivated land and sell the harvest at negotiated prices. Malawi, despite limited resources and Africa's third-highest rural population density, has astutely managed to raise agricultural production by over 7 percent a year since 1973.

World Bank

Planting a new forest in Costa Rica.

Developed countries have reduced some air and water pollution by enforcement of controls on emissions from motor vehicles, industries, and municipal wastes and could do much more by emphasizing increased energy conservation rather than increased energy supply.

Developing countries, by reducing future additions to developing country populations short of the additional 5 billion now projected, would also help relieve pressures on resources and the environment.

China, Cuba, Korea, Sri Lanka, and other leaders in the Third World transition to low population growth rates have demonstrated what works: basic health, family planning, and education services made accessible to all, coupled with strategies to draw women into the development mainstream and expand job opportunities as fast as possible. This lowers fertility and mortality while providing escapes from poverty that reduce what Repetto sees as "the most severe of all resource wastages – the wastage of human resources." *– J.vdT.*

Copies of Repettos's 43-page *Population Bulletin*, "Population, Resources, Environment: An Uncertain Future" (Vol. 42, No. 2), can be ordered from PRB, Circulation Dept., P.O. Box 96152, Washington, D.C. 20090-6152, with checks payable to PRB. Prices are: $4.00 per single copy; 2-10 copies, $3.00 each; 11-50 copies, $2.50 each; over 50, $2.00 each. Orders for $50 or less must be prepaid and include $1.00 for postage and handling.

DEMOGRAPHER'S PAGE

Profiles of Academic, Government, and Private Sector Demographers

by Hallie J. Kintner and David A. Swanson

Demographers traditionally have been employed in academic settings. In the past 10 or so years, however, greater numbers have moved into government and especially the private sector. This change in employment patterns has sparked interest in the comparative working conditions, professional activities, and sociodemographic characteristics of demographers employed in academic, government, and private sector settings.

Thus, in the Spring of 1986 the Population Association of America (PAA) sponsored a survey on behalf of its two standing committees most interested in applied demography: The Committee on Business Demography and the Committee on State and Local Demography. The survey, which was conducted using labor and computer time donated by the Population and Society Research Center at Bowling Green State University, utilized the subscription list to the PAA newsletter *Applied Demography* as a sample frame.

The survey was designed to assess the following five general areas for demographers in academic, government, and private sector positions: (1) current employment characteristics; (2) education and training; (3) professional activities; (4) training recommendations; and (5) income and related sociodemographic information.[1]

There were 659 questionnaires mailed out, and we had 288 valid completed responses.

In this article, we first summarize survey findings by providing profiles of academic, government, and private sector demographers in the U.S. (95 percent of all respondents) and Canada (5 percent). We conclude with a brief discussion of our findings in terms of the training needs of future applied demographers as perceived by respondents to the survey.

PROFILES

Academic Demographers

The typical academic demographer is a male, age 43, with a Ph.D. in sociology. Most of these respondents engage in research and teaching. They also serve as information sources, write contract and grant proposals, give media interviews, and act as both external and in-house consultants. Outside of the classroom, academic demographers most frequently speak in front of other demographers, the lay public, and elected government officials. In terms of generating demographic information, they tend to: (1) use trending or ratio techniques as applied to census data; (2) employ sample surveys; and (3) consult with experts/informants. They examine demographic information for nations worldwide as well as subnational areas within the U.S. and Canada, including states (provinces), SMSAs, and counties.

Compared to their counterparts in government and the private sector, they are less satisfied with both their current salaries and opportunities for salary increases. This may account for the fact that 65 percent of them engaged in outside demographic work for pay in 1985. Nonetheless, academic demographers are satisfied with their fringe benefits, work in general, and the opportunity to "do the things that they feel they do best." Over half report that they regularly read *PAA Affairs* and *Demography*. Other frequently read publications include *Population Bulletin, Population and Development Review, American Demographics, Population Studies*, and *Applied Demography* (the last-named journal is not surprising, given that we used it for the sample frame).

In terms of professional organizations, nearly all academic demographers surveyed belong to the PAA and they are more likely to belong to the Population Reference Bureau, Inc. (PRB) and the International Union for the Scientific Study of Population (IUSSP) than are those in either government or the private sector. Academic demographers are also more likely to have presented a paper at annual PAA meetings, served as discussant, or chaired a session.

Table 1 shows the distribution of salary levels by type of employment. Note that the median academic salary is the lowest at $39,825. Keep in mind, though, that the salary information given in Table 1 excludes any money made from secondary employment for pay that was of a demographic nature – such as outside consulting.

Government Demographers

Like the typical academic demographer, one employed in government is apt to be a male, age 43, with a terminal degree in sociology. Over half the government demographers report engaging in the following activities within their primary employment: serving as an information resource; conducting both short- and long-term research projects; writing technical reports; in-house consulting; directly supervising personnel; giving presentations to management (appointed government officials) and data users/clients; and giving media interviews. In terms of generating demographic information, they most frequently use the following methods: trending or ratio techniques as applied to census data; consulting with experts/informants; sample surveys; and the cohort-component method of forecasting. Over half also report examining demographic data at the state/province, county, SMSA, and city level.

Like the academics, government

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of the Operating Sciences Dept.
of the General Motors Research
Laboratory, Warren, Mich.

David A. Swanson is Director for
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Table 1: Percentage Distribution of Respondents Employed Full-time by Primary Employment Income

Income from primary employment*	Type of primary employment			All Types
	Academic	Private sector	Government	
$ 7,000-$19,999	3.8	6.3	0.0	3.1
$20,000-$24,999	4.7	5.0	4.9	4.9
$25,000-$29,999	15.1	7.5	14.7	12.8
$30,000-$34,999	17.9	10.0	13.7	14.2
$35,000-$39,999	10.4	11.3	15.7	12.5
$40,000-$44,999	15.1	13.8	13.7	14.2
$45,000-$49,999	12.3	12.5	4.9	9.7
$50,000-$54,999	8.5	12.5	15.7	12.2
$55,000-$59,999	3.8	1.3	6.9	4.2
$60,000-$64,999	0.0	6.3	4.9	3.5
$65,000 +	8.5	13.8	4.9	8.7
Total	100	100	100	100
Total no. responding	106	80	102	288
Median income from primary employment**	$39,825	$43,500	$40,000	$40,500

*In U.S. dollars. This includes Canadian residents for which reported income in Canadian dollars was adjusted to U.S. dollars.

**Gross 1985 personal income.

demographers are not satisfied with their opportunities for increased salary but are satisfied with their work in general, their fringe benefits, and the opportunity to do the things that they feel they do best. Unlike academics, government demographers are satisfied with their current salaries. This may explain why a very low proportion engaged in outside demographic work for pay in 1985.

More than 50 percent of the government demographers reported that they regularly read *PAA Affairs*, *Demography*, and *American Demographics*, and while they are less likely to belong to PRB and the IUSSP, they are more likely to belong to the American Statistical Association (ASA). Compared to academics, government demographers are less likely to have presented papers at annual PAA meetings, served as discussants, or chaired sessions, but they are far more likely to have attended the Breakfast Meeting sponsored by the Committee on Business Demography and the Committee on State and Local Demography; they are also more likely to have attended sessions that dealt with population estimation or forecasting.

In terms of salary, the median for government demographers is slightly higher than that of academic demographers, as shown in Table 1. Nonetheless, it is substantially lower than the median for private sector demographers.

Private Sector Demographers

This demographer is more likely to be both female and younger than one in either an academic or government position. Over half have a Ph.D. while 30 percent report a terminal M.A. More than 50 percent also have terminal degrees in sociology. Private sector demographers, like their academic and government peers, tend to serve as information sources, conduct both short- and long-term research projects, and supervise personnel. Like government demographers, they give presentations to management as well as data users/clients and write technical reports. Unlike their academic and government counterparts, they rarely give media interviews.

They are most likely to speak in front of private sector executives, market analysts, and financial analysts, and least likely to speak directly to government officials and the lay public. Over half of these report using the following methods to generate demographic information: trending or ratio techniques as applied to census data; combining public and private data; sample surveys; and consultation with experts/informants. Over half also examine demographic data at both the national and state/province level.

More than their academic and government peers, they are satisfied with their current salaries and the opportunity for salary increases. Of demographers in all three sectors, the lowest percent (30) reporting outside demographic work for pay in 1985 was in the private sector. Their professional activities are also different. They are less likely to belong to the PAA, the ASA, the Southern Regional Demographic Group, or the Canadian Population Association. They are also more likely to belong to the Population Reference Bureau than government demographers. More than half report reading *American Demographics* and *PAA Affairs* regularly, while over one-third regularly read *Demography* and *Applied Demography*. Very few are regular readers of *Population Studies* or *Population Bulletin*. At the annual PAA meetings, private sector demographers are most likely to attend a session dealing with business demography and the Breakfast Meeting.

Among all three types of employment, those in the private sector have the highest median 1985 salary from their primary employment, $43,500. This is substantially higher than medians for academic and government demographers. Very few private sector demographers reported secondary employment of a demographic nature for pay during 1985, however, and

Continued on next page

Table 2: Perceived Usefulness of Training in 23 Areas Reported by Respondents Employed Full-time, Rank-ordered by Percent Responding "Very Useful"

Area of training	Percent responding "Very useful"	Rank-order
General demographic methods	95.3	1
Basic demographic data sources	95.2	2
Population forecasting	84.1	3
Population estimation	82.5	4
Statistical packages	72.6	5
Inferential statistics	68.7	6
Technical writing	65.8	7
Survey sampling	63.9	8
Questionnaire design	61.5	9
Public speaking	52.1	10
Computer programming	51.3	11
Microcomputer spreadsheet	49.2	12
Word processing equipment	43.6	13
Market research	43.3	14
Matrix algebra	30.5	15
Econometrics	30.3	16
Mapping methods	29.8	17
Project management	29.4	18
Calculus	24.4	19
Personnel management	21.8	20
Stable population theory	20.0	21
Financial analysis	7.8	22
Accounting	6.2	23

Continued from preceding page

when taking this into consideration, the median income differentials decline.

TRAINING FUTURE APPLIED DEMOGRAPHERS

Private sector demography is clearly a new frontier for the field. To a lesser extent, so is the demography practiced in government employment, especially at the state and local levels. Given that the bulk of training is conducted within university settings by academic demographers, it is useful to conclude with some survey results on the perceived training needs of future applied demographers. Table 2 shows that the top 10 areas in which to obtain training are generally within the capability of existing demographic programs, which tend to be located in or associated with sociology departments. Nonetheless, we suspect that for many programs, adequate training in applied demography will result only with changes in emphasis; for example, by providing an entire course on population forecasting instead of just a three-day module within a general demographic methods course.

Similarly, departments wishing to improve their training in applied demography may consider greatly reducing the time spent on Stable Population Theory and substituting in its place training on estimation techniques used for subnational areas in U.S. and Canada. Clearly, Stable Population Theory is not perceived to be particularly useful for applied demographers in the eyes of respondents – it ranks near the bottom of Table 2.

Note

1. The full report, scheduled for release in September 1987, can be obtained from David Swanson, Director for Demographic Studies, Population and Society Research Center, Bowling Green State University, Bowling Green, Ohio 43403.

German Census

Continued from page 3

Immediate frictions aside, what is the significance of the 1987 German Census? For one thing, it means that the federal government, the states, and communes no longer have to depend on obsolete demographic baseline data, which would be a dicey situation in a modern industrial society where dozens of laws depend on accurate census data for just execution. Important items among the data include share of state tax distribution, reimbursement of political campaign subsidies by the federal government to the states, the fixing of rent ceilings, and distribution of highway funds.

Furthermore, it should provide long-needed hard statistics on the North-to-South population drift of the country's mobile population. This may result in the North surrendering to the South one or two senate seats (allocated to states according to population size).

Adjusting for "Phantoms"

The census may also show that, as some experts have predicted, at least 1 million young "phantom" Germans have been created by the registration system. The "phantoms" are those who are counted twice. They are created between censuses, according to this theory, because the national registration system tends to keep people on the books who in reality have moved elsewhere and registered again at the community of destination once they arrived but did not have their names deleted from records at their former place of residence. (Communities have no interest in ridding themselves of their fictitious residents because their share of federal income tax depends on the size of their statistical body count. Thus, arrival registration would be encouraged and enforced while the moving away process might conveniently be overlooked.)

It is the mobile and moving young who would be most likely to be registered twice. If some of the estimated youth population turn out to be phantoms, this would mean that Germany might be an even older society than heretofore believed (and even in 1984 its median age was estimated as 36.6 years). It would also have interesting consequences for the nation's social security system.

The results of this German census should reflect major changes. And the Census of Housing is of special importance because the last housing inventory actually began two years prior to the last census and thus is almost 20 years old. Vacant housing units are invariably estimated from between 300,000 to 1 million depending on who does the estimating.

The world's experience in the evolution of enumeration has been that impoverished countries hold censuses very irregularly, if at all. Then, as development proceeds apace, countries begin to enumerate their enlightened populace proudly and with regularity.

In short, the 1987 German Census was conducted after much turmoil and questioning. But Germany should not be singled out; the Netherlands has experienced significant census resistance and has not held a census since 1970. Perhaps the process is coming full circle – countries may be reverting to holding censuses on a very irregular basis, if at all, as concerns about general welfare are eclipsed by privacy concerns of individuals. ☐

– *A.v.C.*

LAST CENSUS IN EUROPEAN COUNTRIES

Northern Europe	**Western Europe**
Denmark 1981	Austria 1981
Finland 1980	Belgium 1981
Iceland 1982	France 1982
Ireland 1986	West Germany 1970
Norway 1980	Luxembourg 1981
Sweden 1980	Netherlands 1970
United Kingdom 1981	Switzerland 1980

Eastern Europe	**Southern Europe**
Bulgaria 1975	Albania 1979
Czechoslovakia 1980	Greece 1981
East Germany 1981	Italy 1981
Hungary 1980	Malta 1985
Poland 1978	Portugal 1981
Romania 1977	Spain 1981
	Yugoslavia 1981

SOFTWHERE

PRB is expanding its demographic software library and is actively seeking population-related programs for educators and research analysts. A comprehensive directory of PC population programs (including type, source, price, and evaluation) is being compiled and will be made available at a future date.

In the meantime, we would appreciate reader comments on the types of software you would like to see reviewed in this column. And if anyone knows of new population-based programs, please contact us so that we may review them and include them in our list.

Still available: the *1987 World Population Data Sheet* on diskette for use with Lotus 1-2-3 version 1A. There are two files: the actual file used to create the Data Sheet and an extract of the numbers for doing sorts, etc. These files are great for ranking, regression analysis, graphs and playing "what if" with an entire planet by inserting new values into the table to see what effect they have on regional and world totals. A bargain at only $10.00; contact David Lamphere at PRB.

– *D.L.*

POPULATION UPDATE

Estimated United States Population:

As of April 1, 1987	243,217,000
As of April 1, 1986	241,039,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1006.

Estimated World Population:

As of July 1987	5,033,000,000
Annual growth	87,000,000

Estimated by extrapolation from the mid-1987 population on PRB's *World Population Data Sheet.*

Latest Provisional Statistics for the U.S.: February 1987

	12 months ending with February					
	Number		Rate			
Item	1987	1986	1987	1986	1985	1984
Live births	3,724,000	3,748,000	15.4	15.7	15.6	15.5
Deaths	2,096,000	2,077,000	8.7	8.7	8.8	8.6
Natural increase	1,628,000	1,671,000	6.7	7.0	6.8	6.9
Marriages	2,389,000	2,432,000	9.9	10.2	10.4	10.5
Divorces	1,155,000	1,189,000	4.8	5.0	4.9	5.0
Infant deaths	38,600	39,300	10.4	10.5	10.7	10.8
Population base (in millions)	...	...	241.4	238.7	236.5	234.2

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source. Monthly Vital Statistics Report (Vol. 36, No. 2) from the National Center for Health Statistics.

Continued from page 4

expected to have checked ID records of each employee within three days of hiring them.

Pursuant to new HHS regulations regarding definition of dangerous contagious diseases, all immigrants applying for U.S. residency have to show they have been tested for AIDS as well as tuberculosis and serious sexually transmitted diseases (and will be refused residency if they test positive for these diseases). INS is currently studying how and when to implement this regulation.

However this new era of U.S. immigration works out, there does seem to be one clear trend: Apprehensions of illegal migrants along the southern U.S. border have dropped significantly ever since the immigration law was signed in November 1986. One possible reason for this is that aliens who normally migrate between the U.S. and Mexico on a periodic basis are now staying put in the U.S. so as to keep their "continuous" residency status unblemished. Another reason: Mexican press has reported lurid misinformation about the new U.S. law, citing alien "concentration camps" and other nonexistent forms of enforcement.

Whatever the explanation, the monthly number of apprehensions has dropped, compared with the same month the previous year:

November 1986:	−18 percent
December 1986:	−25 percent
January 1987:	−25 percent
February 1987:	−33 percent
March 1987:	−39 percent
April 1987:	−52 percent
May 1987:	−58 percent

As dramatic as this declining trend may seem, the total numbers are still higher than, say, five years ago. But the decline does mean that while in 1986 the 1-million mark in apprehensions was reached by the end of May, on its way to a record 1.77 million for the year, there were only some 711,000 apprehensions by the end of May 1987. ☐

–A.H.

TAKE A NUMBER

Dating Oneself: We all like to say that we are "dating ourselves" by admitting to having been regular viewers of "My Little Margie" on television or listening to "The Shadow" on the radio. But such a dating process can have important implications in census-taking. Age is a critical variable for census accuracy but is often only vaguely known in many countries. In the 1987 Census of Botswana, census enumerators used a listing of well-known events to help jog census respondents' memories. The list is an interesting one and gives an insight into more than census-taking. If, for example one remembered the building of the Lutheran church at Ramotswa, the enumerator could feel fairly certain that the respondent was at least 97 years old. In some districts, 1925 was remembered as the year of "great big snakes" as well as one of heavy rains and starvation. Other events used for dating: the introduction of long-eared corn from Nyasaland (1961), tarring of the road to Kanye-Jwaneng (1978), trains collide at Vakaranga (1938), the "Pula" introduced as currency (1976), and the visit of King George VI (1947). This method helps reduce the frequency of "age heaping" in a census, when respondents uncertain of their exact age round it to a convenient digit ending in "0" or "5." But the list also provides a sometimes poignant look into the good and the bad times of a country's history.

Here and There ... to honor the bicentennial of the decennial census, the U.S. Census Bureau is lobbying for a commemorative postage stamp, to be issued in 1990. During 1987, the U.S. Postal Service will decide whether to issue such a stamp, basing its decision in part on input from the public. The first census was held in 1790 and supervised by Thomas Jefferson ... data from the 1980 National Natality Survey indicate that of the 1,445,000 first births in the U.S., 63 percent were conceived within marriage, down from 71 percent in a 1972 survey ... Turkey's bid to join the European Community is meeting with resistance; detractors point to Turkey's high birth rate and the pressure that it places on the economy ... the Census Bureau reports that in 1984, one-third of U.S. children lived in households receiving means-tested assistance such as food stamps, subsidized housing, etc. ... the total fertility rate in the U.S. turned downward once again in 1986 to 1.802 average number of children per woman, down from 1.837 in 1985; the all-time low in U.S. fertility occurred, oddly, in the country's Bicentennial year, 1976, when the total fertility rate sank to 1.738. Apparently skyrockets in flight really were in fashion ...

–C.H.

ADDENDA

Signs of the Inexorable Aging of America–VI

THE
BIG CHILL

Big Chillers know they're getting old ... when cherished songs of their youth are reduced to jingles in television ads – ads which encourage them to transfer their old interpersonal romantic feelings to today's high-quality products. "I Heard It Through the Grapevine" (raisins); "It Ain't Easy" (convenience stores); "Louie Louie" (wine coolers); "Let's Do the Twist" (electric screwdrivers); "Happy Together" (cereal); "Only You" (hamburgers); "Revolution" (advances in rubber-soled athletic shoes). There'll be days like this, Mama said.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

THE BIRTH DEARTH: What Happens When People in Free Countries Don't Have Enough Babies? by Ben J. Wattenberg. New York: Pharos Books, 1987. 192 pages. $16.95. ISBN 0-345-34399-9.

This is an uncomfortable book – uncomfortable for demographers who remember how the postwar baby boom burst the population projections for developed countries formulated during the Depression-induced low fertility of the 1930s; uncomfortable as well for young Americans weaned on Paul Ehrlich's 1968 warning of "The Population Bomb" in Third World countries.

In *The Birth Dearth*, Ben Wattenberg, American Enterprise Institute Senior Fellow, prolific author, columnist, and radio commentator, sums up his already widely advertised view that continuation of rock-bottom fertility in the 22 nations he labels "modern, industrial, free, and 'Western'" (the United States, Canada, Western Europe, Iceland, Israel, Australia, New Zealand, and Japan) could doom Western civilization – "the last, best, hope of mankind."

By the birth dearth (a term he claims to have used first, in a 1971 article), Wattenberg means sustained fertility below the replacement level of 2.1 births per woman necessary to keep births and deaths in balance over the long run. After a "free fall" beginning in the 1960s, fertility rates were well below replacement in all these nations except Ireland, Israel, and New Zealand when *The Birth Dearth* went to press. (New Zealand's total fertility rate has now dropped to 1.9 children per woman, according to PRB's *1987 World Population Data Sheet*.)

"Unless big changes occur," he correctly points out, this "clearly leads to sharp population declines," as has begun already in a few European nations (including "non-Western" Hungary). From 22 percent in 1950 and 15 percent currently, these nations' share of world population could shrink to 9 percent in 2025 and 5 percent at the end of the 21st century, according to United Nations "medium" projections. (These projections assume continuing declines in Third World fertility rates, which currently average 4.2 births per woman; modest population gains in the "Soviet bloc;" and a *rise* in "Western" fertility to replacement level.)

Wattenberg recites a familiar litany of the categories of problems the birth dearth could cause: economic (shrinking domestic and export markets, the collapse of Social Security and innovative labor forces as populations age); geopolitical (erosion of military, economic, political, and cultural influence); and personal ("growing old without offspring is sad for most people"). His main prescription for boosting fertility draws on Eastern European experience: "big pronatalist government money" to lure enough women to stay at home to launch the three- and four-child families necessary to raise average fertility at least to replacement level.

In the U.S. he suggests a cash allowance to parents of $2,000 a year for every child up to age 16, financed from the massive surpluses projected for the Social Security trust fund to 2015 "as the 80 million Baby Boom babies are producing at full steam." That cash could encourage the extra babies to produce the new Social Security-paying workers needed to enter the workplace in the early 21st century, just in time to prevent the retirement system from going broke when the Baby Boomers begin to retire in 2015.

Wattenberg also prescribes a step-up in Western nations' acceptance of legal immigrants, though he admits this would be politically difficult everywhere and in the U.S. could cause racial and ethnic turbulence so long as the "real culprits, the non-reproducing white middle class," fail to reproduce themselves.

Critics of today's depopulation alarmists such as Wattenberg harp on demographers' inability to predict future changes in fertility, as witness the baby boom. In his book, Wattenberg himself frequently admits this. But even so eminent a demographer as Princeton's Charles Westoff now feels below-replacement fertility is here to stay in Western nations, could go lower, and that these nations inevitably face problems "associated with aging, population decline, and questions of immigration" (see "Fertility in the United States," *Science*, Oct. 31, 1986).

Many "Westerners" are also uncomfortable with the notion that a better world requires the preservation and spread of "Western" values. Wattenberg's argument is that the modern, industrial, free West (in which he includes Japan) serves Third World peoples as their "most important model" and source of what "most" of them desire – wealth and freedom. Economically, he claims that poor nations' progress depends on access to Western technology and markets, and world security depends on the continuing spread of democratic values. Demographically, he says, "It would not be a bad policy for *all* nations to aim toward a total fertility rate that is stable or slightly positive: in the range of 2.1 or 2.3."

He may have a point.

– Jean van der Tak

SPOTLIGHT

BOTSWANA

Population (mid-1987 est.): 1.2 million
Land area: 231,804 sq. miles
Births per 1,000 pop.: 48
Deaths per 1,000 pop.: 14
Rate of natural increase: 3.4 percent
Total fertility rate: 6.7
Infant mortality rate: 70 (infant deaths per 1,000 live births)
Life expectancy at birth: 58
GNP per capita (1985 est.): US$840
Capital: Gaborone

by Cary Davis

Botswana, formerly Bechuanaland until it gained independence in 1966, is a landlocked, Texas-sized country in southern Africa. It borders Namibia to the west and north, and Zambia and Zimbabwe to the east. Its southern border is shared with South Africa, whose proximity weighs heavily on life in Botswana. Most of the population lives along the more fertile eastern border since the Kalahari desert and near-desert lands are found in the south and west. In the north, the Okavango River flows into a great inland delta providing one of the most diversified wildlife habitats in all of Africa.

The population of Botswana is dominated by eight Bantu tribal groups, each represented in the government's House of Chiefs. The white population, which has remained since the British protectorate era, is an estimated 1 percent of the total. A few Bushman tribes can also be found. English is the official language, but Setswana is predominant in the tribal dialects.

While Botswana's 1.2-million population is small relative to its land area, it is growing rapidly, creating development and environmental problems. Since 1971, the growth rate has been in excess of 3.5 percent per year, one of the highest in the world, and is expected to remain so for some time. Women in Botswana still bear an average of close to 7 children during their lifetimes. It is projected that the population will be over 1.8 million in 2000, having nearly doubled in 20 years.

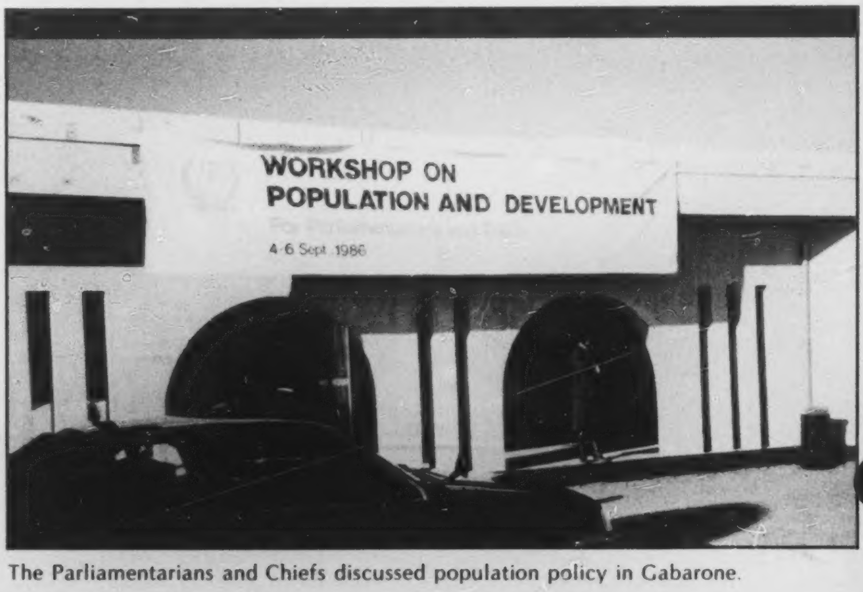
Only six urban areas had populations over 10,000 in 1986. The largest of these, Gaborone, estimated to be 95,000 (up from 18,000 in 1971), may also rank as the fastest-growing capital in Africa. Providing future housing, water, sanitation, health, and education services will necessarily be costly.

The traditional economy is based on agriculture, which employs about 60 percent of the labor force, and livestock raising. The generally low and unpredictable rainfall favors the latter. Crop production has not met domestic demand, and current drought conditions only aggravate the situation. Mining, led by diamond and copper-nickel operations, provided 32 percent of the Gross Domestic Product in 1984, up from 9 percent in 1975.

Excess labor is exported to South Africa, providing an important source of income, but also making Botswana vulnerable to South African economic and political shifts. Since the mid-1970s, this employment alternative has declined, compounding economic problems by reducing the flow of remittances and increasing the need for domestic employment.

Although Botswana relies heavily on transportation and communication links with its southern neighbor, the government is openly critical of apartheid. Tensions between the two countries have run particularly high following charges by South Africa that Botswana is a base for guerrillas from the African National Congress (ANC).

The national 1984 Family Health Survey showed that 19 percent of women of reproductive age in union were using a modern contraceptive method; compared to other announced Sub-Saharan African contraceptive rates, only Zimbabwe's 27 percent is higher. Nevertheless, Botswana's fertility remains high. The national government appears to be moving toward more concerted action on the population front; in September 1986 a Conference of Parliamentarians and Chiefs met to consider creating a National Population Policy aimed at better coordination of population growth and economic development.



Cary Davis/PRB

The Parliamentarians and Chiefs discussed population policy in Gabarone.

POPULATION TODAY

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FEATURES

3 They came to Jyväskylä
Report from the first European Population Conference

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But welfare's effects widely misunderstood, PRB Trends paper finds

4 Jean van der Tak forsakes editing for travel
Veteran PRB editor retires from *Population Bulletin*

5 Survey canvasses Barbadian males
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5 Alternative birth technologies pose legal, ethical dilemmas
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6 The world of forensic demographers
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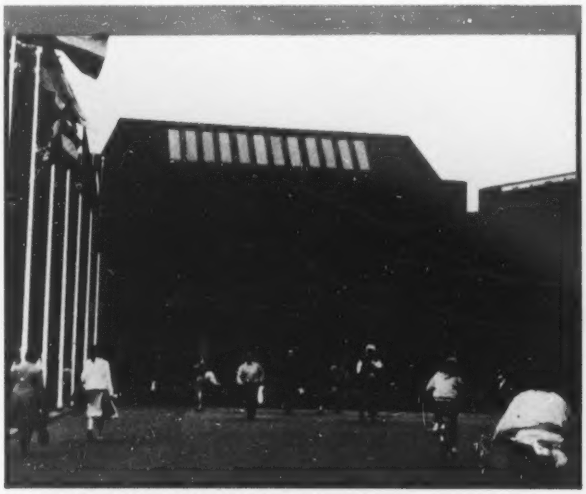


Alice T. Day

University of Jyväskylä. (See page 3.)

PRB A publication of the Population Reference Bureau, Inc.

FROM THE EDITOR'S DESK

No respect. Even the U.S.'s "bicentennial census" in 1990 is not immune from attack. As we go to press, the news has broken that the Office of Information and Regulatory Affairs of the Office of Management and Budget (OMB) has proposed the elimination of about 40 percent of the questions normally asked on the country's 10-year tally.

If the OMB gets its wish, census questions on residence five years prior to the census and on children ever born will be dropped, taking census data on migration and fertility with them. Also under the ax are labor force questions and an extensive list of housing data.

After some of the consternation cleared, many census users asked, among other things: Why now? Census pretests and questionnaire design have been going on for most of this decade with the advice of public advisory committees and the help of interagency groups in determining data needs for public programs.

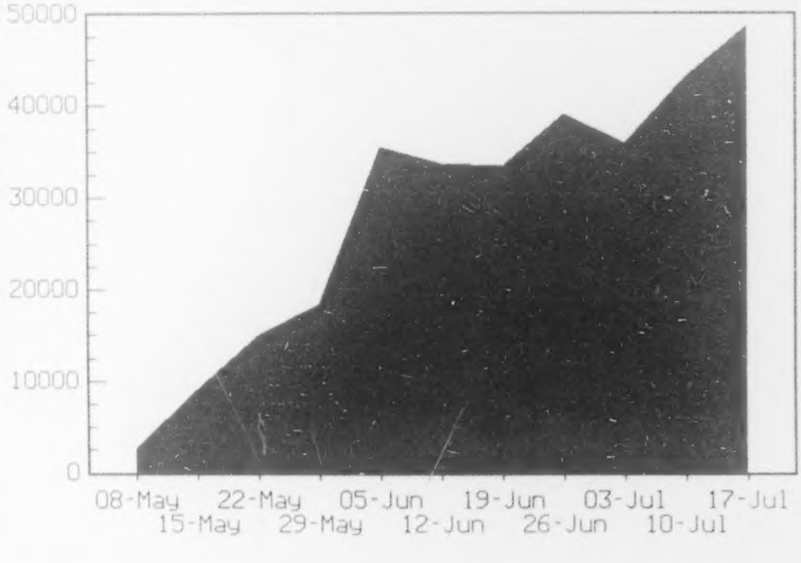
And so, the wily ways of Washington work their wondrous web. The reason given: paper work reduction.

It must be August.

—C.H.

SPEAKING GRAPHICALLY

Applications for Amnesty Filed with INS



The graph above shows the total number of alien applications filed each week since the Immigration and Naturalization Service (INS) began receiving them on May 5, 1987.

POPULATION TODAY

VOL. 15, NO. 9 **September 1987**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address, please allow eight weeks for change.

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ISSN 0749-2448

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Finland Plays Host to First European Population Meeting

by Alice T. Day

Possible population decline in Europe was one focus of last June's major meeting of the first European Population Conference, held in Jyväskylä, Finland, June 11-16.

Changes in family structure, aging national populations, and population and economic growth were also widely discussed during the Conference, which constituted the first major scientific nongovernmental meeting concerning the continent's population problems.

Earnest and Concerned

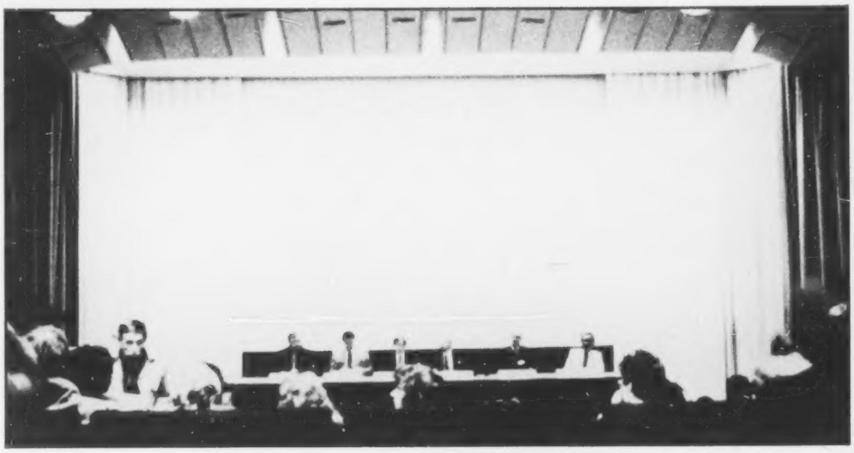
At last spring's Chicago meeting of the Population Association of America (see *PT*'s June 1987 coverage), the mood of demographic participants was described as "easy going." By contrast, the mood of people at the European Conference seemed earnest and concerned – looking to sociology and social policy to provide population insights rather than to economic and business demography approaches used by many American specialists.

According to one low-variant projection presented to the Conference, Europe's total population could fall by about 34 million from 1980 to 2035, when it would reach 451 million, while low-fertility Western Europe's population (given a further fertility drop to 1.29 children per woman by 2030) could drop 21 percent during the same 55-year period.

In talk that overflowed into the halls and cafeteria at the University of Jyväskylä, small knots of people could be overheard speculating: "What will it mean for the aspirations of women if national concern about population declines sparks a vigorous back-to-the-family movement?" "Can the hale young-old be counted upon to care for the frail old-old?" "Why are young adults postponing marriage – is it because of anxiety about making commitments in a nuclear world?"

And: "Will the influx of migrants from different cultural backgrounds irrevocably alter the characteristics of European society?"

Alice T. Day



Thirty-seven countries were represented at the conference.

The Conference was sponsored by the International Union for the Scientific Study of Population (IUSSP) and the European Association for Population Studies (EAPS), established in 1983. The meeting's 350 attendees – academics, demographers in government and private organizations, policymakers, journalists, and students – came from 37 countries around the world. (Affiliations of attendees given in this article are by country of residency, not country of origin.)

Will the influx of migrants from different cultural backgrounds irrevocably alter the characteristics of European society?

Twenty-five concurrent paper sessions were held. But the conference's real drama unfolded in the seven plenary meetings where all the attendees were able to discuss Europe's substantive population trends and data issues.

Major concerns raised in the plenaries: (1) population prospects for Europe into the 21st century; (2) fertility trends since 1960; (3) patterns of marriage and family relations and their consequences for the future of the family; (4) social differentials in mortality; (5) population trends and policies; (6) the impact of demographic change on economic growth and social welfare; and (7) population policies and their effectiveness in reaching desired goals.

Although they did not necessarily agree on the definition of these problems or how best to approach them, those at the meeting saw these issues not as academic topics but as immediate, concrete concerns that needed to be addressed if the populations of Europe were to be guided by design rather than drift.

The Family's Future

Those plenary papers on the future of the family and population policies elicited particularly eloquent debate. (The plenary session papers were published in advance in English by the Central Statistical Office of Finland in a 433-page volume.) A number of people rose to lament and rebut the view of Hans Hoffmann-Nowotny (Switzerland) that the family, traditionally organized along primary-group "gemeinschaft" lines (based on kinship and emotion) was giving way to a "gesellschaft" (more impersonal, formally organized) type of group.

Continued on page 8

U.S. Welfare Population Maligned and Misunderstood

While a costly welfare reform package awaits congressional action in the 100th Congress, the White House, on a possible collision course with Congress, has been seeking ways to trim government benefits to the needy.

Welfare reform is one of the most volatile social issues facing U.S. policymakers in the 1980s. Unfortunately, the public image of welfare programs and of the people who use them is often based on myth, anecdote, or misinformation.

Some of these myths are exposed in "America's Welfare Population: Who Gets What?" by William P. O'Hare, the latest in PRB's *Population Trends and Public Policy* series. This publication examines the welfare population, 48 million strong in 1986, and addresses some of the major issues in the welfare debate. (O'Hare is also the author of this month's Demographer's Page; see page 6.)

Only a fraction of the government expenditures on public assistance are actually "welfare," i.e., aid for those without any means of support. The majority of funds pay for Social Security, Medicare, or unemployment benefits, and are distributed regardless of recipient income or assets. Welfare benefits are usually in the form of services, such as medical care, subsidized housing, or food stamps – not cash. The author points out that at least 40 percent of the people with incomes below the poverty level receive no welfare benefits.

About 20 percent of all Americans receive some government assistance, but the chances of going on welfare are much greater for female heads of households, blacks and Hispanics, and persons under age 25. In 1986, three-fourths of the families headed by a black or Hispanic woman were on welfare.

Increasing divorce rates have contributed to a rise in single-parent families with dependent children and one-person households, both of which use welfare more often than "intact" married couple families. These trends are projected to add millions to the welfare rolls between 1986 and 2000, if present trends continue.

O'Hare could find no evidence that welfare promotes out-of-wedlock births or causes families to break up, another popular misconception. Rather, he says, most people turn to welfare to weather crises such as divorce, an out-of-wedlock birth, or loss of income, not as a permanent source of support. However, a significant minority do become long-term welfare users.

Current welfare reform initiatives focus on making state eligibility rules more uniform; extending child care benefits and Medicaid to ease the recipient's reentry into the labor force; and encouraging states to incorporate job training in their programs. Other proposals emphasize cost-cutting and fraud detection.

Some states have launched innovative work programs to help welfare recipients get and keep jobs – and stay off welfare. But results are mixed; and such programs wouldn't help the many recipients who can't work because they are too young, too old, or disabled.

And, concludes O'Hare, while current welfare reforms may make the system more equitable or streamlined, they are unlikely to have a significant effect on the poverty level. In 1986, 13.6 percent of the U.S. population was living at or below the poverty level, defined as $11,203 cash income (1986) for a family of four. When the poverty measure began in 1960, the level was 22.2 percent; during the 1970s, it dropped steadily to a 1973 low of 11.1 percent, and since that year has remained in the 11-15-percent range. ☐

—M.K.

Copies of *America's Welfare Population: Who Gets What?* by William O'Hare are available for $3.00 per single copy; 2-10 copies, $2.30 each; 11-50 copies, $1.90 each; 51 or more, $1.50 each. Orders of $50 or less must be prepaid and include $1.00 for postage and handling. Send order and remittance to Population Reference Bureau, Inc., Circulation Dept., P.O. Box 96152, Washington, D.C. 20090-6152. Make checks payable to PRB.

Jean van der Tak Retires

Jean van der Tak, editor extraordinaire of *Population Bulletin,* has retired from PRB, announcing that enough editing was enough and that she wanted to go traveling.

The Canadian-born van der Tak is well known to her fellow workers and the population community at large. (In her retirement, she will continue in her capacity as official historian of the Population Association of America.) Her announcement last spring was originally greeted by shocked disbelief at PRB, where she had edited the long-running monograph series since 1976. In June she was feted by some 70 admirers and fellow workers. PRB President Thomas W. Merrick presented her with the Bureau's official gift: a slipcased collection of the 59 *Bulletins* she edited, personally autographed for the occasion by their authors.

Van der Tak's editorial perfectionism and attention to crucial quality issues were themes familiar to her authors and typesetters. The final *Bulletin* under her editorship was "Population, Resources, Environment: An Uncertain Balance," by Robert Repetto (July 1987, Vol. 42, No. 2).

The new editor of *Population Bulletin* is Roberta Yared, from the International Institute for Applied Systems Analysis (Austria). Yared has also served as information officer at the World Health Organization and UPI bureau chief in Jakarta, Indonesia.

—A.H.

SURVEY REPORT

Barbados

In many Caribbean Islands, a large percentage of couples are not formally married but live together outside marriage or enter into informal "visiting" relationships, sometimes with more than one partner. Such is the case in Barbados. Since more births occur outside of legal marriages, fertility surveys in the Caribbean have sought unique ways of measuring contraceptive use and reproductive behavior. This was one of the reasons for the 1982 Barbados Male Family Planning Survey, and for similar male surveys on the islands of St. Kitts and Antigua.

Theoretically, men could answer some of the questions raised by the 1980 Contraceptive Survey of women in Barbados and provide a more complete picture of fertility on that island. However, men proved more elusive survey subjects than women and only 1,301 of an expected 1,500 men age 15 to 49 were interviewed. About 36 percent said they were in a regular "visiting" relationship, 14 percent living with a woman, and only 19 percent were actually married. Women interviewed in the 1980-1981 Barbados survey showed a similar breakdown by type of relationship, except that almost one-fourth said they were formally married.

Fertility is low on Barbados – women have an average lifetime total of 2.0 children. In 1982, 51 percent of the men in some type of conjugal relationship were using contraception: 14 percent had a partner on the pill, another 14 percent used the condom, and 8 percent had a sterilized partner. The remainder were using a traditional method, such as withdrawal or rhythm, or one easily available from pharmacies, such as foam. However, unlike contraceptive-use rates for women, one man using a contraceptive does not equal the prevention of a birth, since men may use contraception with one partner but not another.

The percentages using family planning were greatest for men in a formal marriage (57 percent) and lowest for those living with a woman (45 percent). But there were larger differences in the type of contraceptive used depending upon the type of conjugal relationship. Twenty percent of the men in a visiting relationship used the condom, compared to only 9 percent of married men. Conversely, only 2 percent of the men in visiting relationships had a sterilized partner compared to 16 percent of married men.

Men were also asked to give their attitudes toward women, pregnancy, and family planning in an effort to examine attitudes that might affect the fertility of their sexual partners. About 43 percent of the men thought that women's status was equal to men's, and 69 percent agreed it ought to be. More educated and married men were most likely to think that women currently held a lower status than men. The men wanted an average of 2.1 children, close to the current actual fertility rate, and there was little difference by age, education, or other background characteristics.

The men agreed that young girls were having babies too early – reflecting a nationwide concern about teenage pregnancies – but felt it was all right to enter relationships at a young age. Age 19 was considered optimal for beginning a visiting relationship, but the men surveyed felt marriage should wait until age 28, on average. Men appeared to accept some, but not the major, responsibility for preventing pregnancy in a relationship; less than half said that contraceptive decisions should involve both partners.

– *M.K.*

Mommy^3 + Daddy^2 = Baby?

It is possible today for a child to have up to five parents: an ovum donor, a sperm donor, a woman providing a womb for gestation, and the individual or couple raising the child. The debate surrounding the Baby M. case – the fact that there was such a trial – shows society being outpaced yet again by new technologies. The ethical, legal, and social controversies confronting society with the increasingly widespread use of alternative "birth technologies" are analyzed by Dr. Stephen L. Isaacs and Renee Holt of Columbia University's Center for Population and Family Health in "Redefining Procreation: Facing the Issues," PRB's *Population Bulletin* for September 1987. Isaacs is a jurist and professor of clinical health; Holt is a nurse and attorney.

Discussions of artificial insemination, in vitro fertilization and embryo transfer, and surrogate motherhood – pros and cons, in the U.S. and other countries – lead to a discussion of general guidelines concerning the rights and obligations of all parties involved.

In 1985, 42 percent of women aged 25-29 and 26 percent of women aged 30-34 were childless, compared with 31 percent and 16 percent ten years earlier. Yet the proportion of infertile couples has not changed significantly since 1965.

Is the definition of "parent" genetic, gestational, or through a social role? When does paying medical and other expenses to a surrogate mother become a case of "rent a womb"?

Fundamental questions have been raised. The new age of reproduction has made it possible for procreation to be completely separated from sexual relations, for a woman to carry and give birth to a baby having no genetic relation to her, and for siblings with the same parents to be spaced as much as 20 or 30 years apart. The issues raised by alternative birth technologies, Isaacs and Holt say, must be addressed. – *R.Y.*

Copies of Isaacs and Holt's "Redefining Procreation," *Population Bulletin*, can be ordered from PRB, Circulation Dept., PO Box 96152, Washington, DC 20090-6152, with checks payable to PRB. Prices are: $4.00 per single copy; 2-10 copies, $3.00 each; 11-50 copies, $2.50 each, over 50, $2.00 each. Orders for $50 or less must be prepaid and include $1.00 for postage and handling.

Demography Approaches The Bench

by William P. O'Hare

The dictionary defines forensic as "belonging to, used in, or suitable to courts of law..." which aptly describes the work of a growing number of demographers who periodically find themselves in the courtroom as expert witnesses.

Given the widespread uses of statistical and demographic data in our "information society," it is no surprise that demographers have been called upon to provide analysis and expert judgments for courts. It is hard to gauge the number of demographers involved in this type of activity, but a recent survey of applied demographers found that 4.3 percent of the respondents had provided expert testimony for courts during the previous year, and many more provided expert testimony for administrative and legislative bodies.

One measure of the growing professional interest in this topic among demographers is the number of sessions at professional meetings which address the use of demographers or demographic data in litigation. One of the earliest of these sessions, entitled "Demographers and the Courts: Cases and Problems," was held at the 1977 Population Association of America (PAA) meeting in St. Louis. There are signs that interest in this topic has picked up in the mid-1980s. One of the most well-attended sessions at the 1985 Southern Regional Demographic Group (SRDG) annual meeting was entitled "The Demographer as a Participant in the Legal Process," and SRDG sponsored a special workshop prior to the 1986 annual meeting for persons interested in discussing this topic. This year has seen luncheon round tables on demographers in the courtroom becoming a regular feature of the annual meetings of both the PAA and the American Sociological Association (ASA).

There is ample evidence that demographic data are widely employed in courts for a variety of purposes. According to Barbara Linden, Deputy Director of the National Social Science and Law Center in Washington, D.C., at least 80 percent of the requests for social science assistance received from legal services attorneys across the country require some sort of demographic data, usually data from the Census Bureau.

The recent implementation of an accreditation process for specialty areas undertaken by the ASA (including a specialty area for population studies) was fostered in part because of courtroom protocol. Some sociologists found themselves at a disadvantage when competing with other disciplines which have licensing procedures. However, it is unclear how the demographic community will respond to the ASA's accreditation procedures.

Census Litigation Lives On

Some of the topics that bring demographers into the courtroom are probably well known by the readers of *Population Today*, but other litigation-related applications of demographic skills and uses of demographic data may surprise some readers. The small sample of applications below will give the reader some idea of the breadth of cases which call for demographic skills and expertise.

Litigation related to the decennial census is probably the largest single reason for demographers ending up in the courtroom. The controversy surrounding the undercount of minorities in the 1980 Census brought a flurry of litigation which called upon the expert testimony of a great number of demographers. There were 52 suits against the Bureau regarding this most recent decennial census; 23 of those suits are still pending.

Census Bureau demographers were required to inform the court about the census-taking process and the difficulties of adjusting Census figures to account for known undercounts of minorities. While the cost in time and money for the legal defense effort required by the Census Bureau is impossible to estimate, one Census Bureau demographer, Jeff Passell, spent nearly all of his time from September 1983 to April 1984 working on just one aspect of one case.

On the other side, plaintiffs brought in several prominent demographers to try to convince the court that reasonable adjustments for the acknowledged census undercount could be made in a timely fashion.

Census-related litigation sometimes emerges when jurisdictions are required to construct new political districts following the decennial census in order to meet the constitutionally required one-person-one-vote rule. Since politicians must rely on decennial census data (and census geography) to construct a set of districts which meet legal requirements, the demographers involved are often required to appear in court to explain and/or justify the configuration of districts developed. On the other side of the coin, those who dislike a redistricting plan are likely to hire a demographic expert to prepare an alternative plan which also must be presented and defended in court. While most of this activity occurs within a few years of the decennial census, some cases are dragging on the entire decade.

Activity in this area often turns into a zoo in more ways than one. The term "gerrymander," which has become shorthand for constructing districts for partisan political purposes, was derived in the early 1800s when Elbridge Gerry was Governor of Massachusetts. One of the districts constructed at that time was so convoluted that it was said to look like a salamander, and the press quickly started referring to it as a "gerry-mander." Following the 1980 Census, one contested congressional

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district in the New Orleans area became known as the "Donald Duck" district because of its shape. In Hinds County, Miss., one could find a district labeled the "Baby Elephant" district, and in Adams County, Miss., there was a "Giraffe" district.

Like the census, preparation of local population estimates can become the subject of strenuous litigation. In a recent working paper, Henry Krebs and his colleagues in Wisconsin recount their courtroom experience defending the state's population estimation procedures that were used for generating state revenue-sharing estimates.[1] Since population estimates are often tied to the distribution of public funds, they are taken very seriously by public officials.

Estimates and Civil Rights

The civil rights laws enacted in the 1960s have led to another important application of demographic expertise. Demonstrating a violation of the Equal Opportunity Employment (EOE) laws typically requires an assessment of how well the characteristics of a set of employees reflect census data for variously defined groups. Demographers' knowledge of census data plus the ability to perform at least elementary tests of statistical significance make them valuable expert witnesses for both plaintiffs and defendants in these types of cases.

The Voting Rights Act is another civil rights law which brings demographers into the courtroom. When plaintiffs allege that a particular political districting plan illegally discriminates against minorities, they typically must present an alternative plan for carving out political districts which meets constitutional requirements as well as the requirements of the Voting Rights Act.

Furthermore, a key piece of evidence in voting rights litigation is proof that blacks and whites vote as racial blocs. This is usually demonstrated by examining the correlation between precinct data on the votes cast for each candidate and the racial composition of that precinct from Census data. Finally, social demographers are often sought to show how the socioeconomic characteristics of minorities which are the products of past discrimination impinge upon their ability to participate in the political process.

In cases where one party is alleged to be responsible for a person's death, typically classified as wrongful death suits, courts often use the life expectancy of various groups to decide how much of an award to give the survivors – another situation that calls for demographers to give expert testimony.

Thomas Espenshade, an economic demographer with the Urban Institute, has been an expert witness many times based on his research on the costs of raising children. When child support awards are being contested in court, data on the real costs of raising children become much more than a research issue. Also, when sterilization procedures fail, doctors can be held accountable in the ensuing "wrongful birth," and the cost of raising a child becomes a point of litigation.

Advocates also find demographers useful in both legal and administrative hearings where site characteristics become important. For example, such hearings are typically necessary in order to gain a Certificate of Need which is required for constructing new health care facilities. In many states, hospitals and other health-related institutions must provide the state with documentation that a new facility is warranted in a given location before they can receive a license from the state to build. One of the major pieces of evidence required for Certificates of Need is demographic data, and specifically projections of the population of the area which the new health facility is likely to serve. Of course, competitors who would like to keep a new health facility from moving into a market may hire their own demographic expert to contest the population projections submitted by the applicant. (With deregulation of the health care industry, such legal cases are becoming less common.)

This is just a sample of the kinds of cases that bring demographers into the courtroom as expert witnesses. Even when demographers are not required to give live testimony in court, they are often called on to prepare affidavits or provide advice for attorneys.

Register Expert Witnesses?

While there is a widespread feeling that the number of demographers providing expert witness testimony has grown in recent years, along with professional interest in this topic, there has been little systematic effort within the demographic community to examine this form of professional activity. Nor has there been any effort to facilitate the location of appropriate demographers by attorneys seeking an expert witness. Many demographers involved in this type of activity know of each other's work only because of informal networks or chance discussions at professional meetings.

The group of professional demographers who testify as expert witnesses have two fundamental needs that are not being met. One is a systematic way to facilitate communication among demographers who do such work. A network would allow demographers to share experiences and perhaps lay down appropriate professional guidelines. Another need is a systematic and professional mechanism to make the names of such demographic experts available to attorneys who are searching for a demographer to serve as an expert witness.

Note

1. Henry Krebs, Charles D. Palit, Halliman Winsborough, and James Sweet, *Population Estimates, Politics, and the Law*, Center for Demography and Ecology, Working Paper 77-18, University of Wisconsin – Madison.

Conference

Continued from page 3

Rudolf Andorka (Hungary) called it "a depressing paper. The 'gesellschaft' society, a society without primary groups, is a disaster." He cited findings from research he and his colleagues are conducting in Hungary suggesting that lack of stable family relations contributes to deviance, the state is not able to care for the needs of the elderly, the socialization of children in institutions is deficient, and gaps grow in social services and welfare. Small groups and families are assuming a *more*, not *less*, important role in performing these important social functions, he indicated.

Appealing to the conference, Andorka said that European societies must develop new institutions, the sorts of communities that fall between families and the state. Peter McDonald (Australia) took another tack. Asserting that Hoffmann-Nowotny had presented a "limited, straight-line theory of social change," he proposed that on the contrary, "the world of the family is full of plains, valleys, and mountains. To say that the family is headed toward a state of raw individualism is misleading." Rather, "women and children have greater autonomy and are more able to negotiate on an equal basis."

Among divorced couples, for example, McDonald said, noncustodial parents are being expected to support their children. "Most people are looking for intimate relations." Research in Australia shows that adult children are returning home to seek the support of their parents.

Policy and Incentives

An indication of the meeting's tone can be illustrated by the reception given the paper by Andras Klinger (Hungary) on the effect of pronatalist policies. Commentators criticized the paper for emphasizing pronatalist policies to the exclusion of policies affecting other aspects of population, and for stressing economic rather than social incentives. Population policies, these critics argued, should include strategies to raise health levels, regulate migration, and improve social and economic conditions for families.

A review of pronatalist incentives, said Erland Hoftsten, retired head of Statistics Sweden, had better consider measures to foster "a child-friendly world," widen the roles of men to include child care and more nurturing, and create a society in which women can bear children and still hold responsible leadership positions.

Capping the discussion, Charlotte Höhn (West Germany) predicted: "Pronatalist policy will not have a brilliant future." Rather than urging women to leave the office and go back to the nursery, she said, we should focus on "the emancipation of men."

The Setting

Jyväskylä, Finland's 10th most populous city with 65,000 people, may originally have seemed like an unusual place to host a European Population Conference. (It's pronounced Ih-VESS-kee-lah.)

But IUSSP organizers felt that Finland, with its reputation as a bridge builder between Eastern and Western Europe, could attract representatives from both regions. The city itself wanted to host the conference as part of the 150th anniversary of its founding, and offered to donate the facilities of its university.

Although the week of the conference was rain-drenched and the temperature rarely exceeded the mid-50s (F.), the Jyväskylä venue proved to offer a happy combination of good attendance, high research quality, and opportunities for demographers from all over Europe to talk in a relaxed setting with their colleagues. Bonuses for participants: a sauna at the end of the day and, between sessions, cruises over the beautiful clear lakes for a traditional Finnish meal at one of the "Savutuvan Apaja" (old farmhouses).

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William Sweeney (1931-1987)

Population communications specialist William O. Sweeney died July 4, after a long illness. He was 55.

Sweeney was a widely known specialist in population communications who helped to develop many institutions and programs in Third World countries. For many years he was a project specialist in the Office of Population at the Ford Foundation, setting up population-related institutes and projects under Ford sponsorship. He was an adviser on population matters to the governments of Costa Rica, Egypt, the Philippines, and Indonesia as well as to the UN Fund for Population Activities. He also served on PRB's Board of Trustees from 1975 to 1981. In 1981 he was named the first Visiting Scholar to PRB, where he conducted research on availability of demographic materials in the Third World.

John Reid (1925-1987)

John Reid, specialist on black populations, died July 29 in Detroit. He was 63.

Reid served on PRB's Board of Trustees from 1975 to 1981. Among his publications was the PRB *Bulletin*, "Black America in the 1980s," as well as Demographer's Pages for *PT*.

He was professor of sociology and demography at Howard University. Previously he had served as demographic statistician at the Center for Demographic Studies, U.S. Census Bureau, and was a member of the Advisory Committee of the U.S. National Center for Vital and Health Statistics. Dr. Reid also held the Ware Chair at Atlanta University, and was chairman of that university's sociology department.

Arrests Up on U.S. Border

Eighteen undocumented Mexican aliens died of suffocation in a railroad boxcar in Sierra Blanca, Tex., July 2, after they had been locked inside by smugglers in an effort to make the car less likely to be investigated by border authorities.

This apparently accidental tragedy highlighted the extent to which covert illegal migration continues as usual even after the implementation of the new Immigration Reform and Control Act. Apprehensions – considered a plausible index of the volume of border crossings – are still down compared to 1986.

But while May 1987's apprehensions were 58 percent below a year ago – continuing a consistent downward trend of alien arrests (see *PT*, July/August 1987), in June the direction of that trend halted. Apprehensions in 1987 were "only" 30 percent below the previous year's.

In the Chula Vista sector near San Diego, the Immigration and Naturalization Service (INS) reported a record 63,061 apprehensions at the border. This may be a response to lessened fears of deportation and to news reports of serious farm labor shortages in the Southwestern U.S. following passage of the new immigration law. The INS hopes that stepped-up enforcement with fines and possible jail sentences for employers who knowingly hire illegals may once again stem the tide.

More aliens are filing applications for amnesty; the cumulative total is up to 313,782 as of July 17. (See graph on page 2.) The Immigration and Naturalization Service says that it has not changed its expectation of a total of two million applications during the one-year window of opportunity.

Meanwhile, employers are dutifully checking new employees' bona-fides and keeping on file their I-9 forms attesting to their legal status. Citations and fines are expected to be implemented by late summer. For employers who have questions about the process, INS offers a toll-free information hotline: 1-800-777-7700 —*A.H.*

SOFTWHERE

TM1 Population Human Resources and Development Planning Training Module 1 is perhaps the most user-friendly population-projection program yet released. Menus allow the user (even a novice) to enter or modify data easily. The program simulates interactions between fertility, mortality, population growth, age-sex structure, and the effects of demographic trends, allowing the demographer to simulate difference scenarios; only a limited amount of data are required; and the results (projection tables and graphs, if desired) are produced with lightning speed. The program is logically laid out and can be learned and used intuitively.

The program, written by Geoffrey Greene, is designed to run on IBM PCs and compatibles with at least 256K and two disk drives. The program can be obtained on request from: Employment Planning and Population Branch, International Labor Office, CH1211 Geneva, 22 Switzerland.

– *D.L.*

POPULATION UPDATE

Estimated United States Population:

As of May 1, 1987	243,375,000
As of May 1, 1986	241,216,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1007.

Estimated World Population:

As of September 1987	5,047,500,000
Annual growth	87,000,000

Estimated by extrapolation from the mid-1987 population on PRB's *World Population Data Sheet.*

Latest Provisional Statistics for the U.S.: April 1987

	12 months ending with April					
	Number		Rate			
Item	1987	1986	1987	1986	1985	1984
Live births	3,729,000	3,756,000	15.4	15.7	15.7	15.5
Deaths	2,099,000	2,079,000	8.7	8.7	8.8	8.6
Natural increase	1,630,000	1,677,000	6.7	7.0	6.9	6.9
Marriages	2,416,000	2,435,000	10.0	10.2	10.4	10.4
Divorces	1,159,000	1,184,000	4.8	5.0	4.9	4.9
Infant deaths	38,400	39,200	10.3	10.5	10.6	10.8
Population base (in millions)			241.8	239.1	236.9	234.5

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births.

Source. Monthly Vital Statistics Report (Vol. 36, No. 4) from the National Center for Health Statistics.

TAKE A NUMBER

New UN Urban Projections:

The United Nations Population Division has published its latest series of widely used urban estimates and projections, *The Prospects of World Urbanization, Revised as of 1984-85.* The report indicates that in 1985, 41 percent of the world's population lived in urban areas and that the proportion is projected to increase to 60 percent by 2025. The increase is projected to be more rapid in less developed countries (LDCs), from 31 percent in 1985 to 57 percent in 2025, compared to 72 and 78 percent, respectively, in the more developed countries (MDCs). These percentages translate into an increase of 2.7 billion urban dwellers in LDCs by 2025, far overshadowing the MDCs' addition of about 250 million. The top 20:

	Urban agglomeration	Country	1985 population (millions)
1	Tokyo/Yokohama	Japan	18.8
2	Mexico City	Mexico	17.3
3	Sao Paulo	Brazil	15.9
4	New York	United States	15.6
5	Shanghai	China	12.0
6	Calcutta	India	11.0
7	Buenos Aires	Argentina	10.9
8	Rio de Janeiro	Brazil	10.4
9	London	United Kingdom	10.4
10	Seoul	South Korea	10.3
11	Greater Bombay	India	10.1
12	Los Angeles	United States	10.1
13	Osaka/Kobe	Japan	9.5
14	Beijing	China	9.3
15	Moscow	Soviet Union	9.0
16	Paris	France	8.7
17	Jakarta	Indonesia	7.9
18	Tianjin	China	7.9
19	Cairo/Giza	Egypt	7.7
20	Tehran	Iran	7.5

These data generally use the countries' own definitions of urban agglomeration, which usually includes a central city and its surrounding urbanized localities. The new estimate also caused Tokyo and Mexico City to change places in 1985 from the UN's previous series. Mexico City's more rapid growth should, however, cause it to regain the top spot as its population grows to 26 million by 2000.

Continuing Fertility Decrease in Indonesia:

Survey data from Indonesia indicate that fertility has continued to decrease, as had been claimed by the National Family Planning Coordinating Board. This decline, doubted by some skeptics, may actually be accelerating. The 1985 Intercensal Survey (SUPAS 85) measured a total fertility rate (TFR) of 3.3 lifetime births per woman, down a full child from 1980.

While such survey-based estimates are subject to error, such as the misdating of births or memory lapses, the well-trained interviewers and the importance of the month of birth in Indonesian society should give the survey results considerable credence.

The 1980-1985 decline in certain provinces are particularly eye-catching. In Central Sulawesi the TFR went from 5.8 to 3.8, from 3.9 to 2.2 in Jakarta, and from 5.1 to 3.3 in Jambi.

These new data show that the government's policy to reduce fertility 50 percent by 1990 may well be achieved, a development which will surprise many. The data from SUPAS 85 are the first since the 1980 Census and will likely be the last until the 1990 Census results become available in 1992. —*C.H.*

LETTER TO THE EDITOR

In the "Take a Number" section (March 1987 *PT*), it was reported that Iceland had reported a statistical anomaly: a 1985 sex ratio at birth below 100 males for every 100 females. (The sex ratio at birth in most countries is about 105 or 106 males for every 100 females.)

Is Iceland's sex ratio at birth out of line because of its small population? The reported sex ratio per female at birth was 0.975, really unusual for a national European white population. The 95 percent (2 sigma) confidence interval is 0.915-1.040. This means that it still is possibly low for a European white national population:

Proportion male births reported:	0.4938
95 percent confidence interval for proportion:	0.4777-0.5099
95 percent confidence interval for sex ratio:	0.915-1.040

Jacob S. Siegel
Dept. of Demography
Georgetown University

ADDENDA

©1987 M. Twohy, *Hippocrates*

"Price check on condoms!"

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St. N.W., Suite 800, Washington, D.C. 20005.

A CENSUS OF ONE BILLION PEOPLE, edited by Li Chengrui. Boulder, Colo.: Westview Press, 704 pages, $50.00. ISBN 0-8133-0485-7.

A Census of One Billion People consists of 47 papers presented at the International Seminar on China's 1982 Population Census, held in March 1984 with support from the UN Fund for Population Activities. Papers on the planning, taking, and processing of the census provide a wealth of information about the largest-ever census effort, including stories of enumerators being bitten by snakes and walking across deserts to reach remote populations as well as descriptions of the census's computational infrastructure.

Using data from the 10-percent sample tabulation, Chinese statisticians and demographers as well as international experts discuss the quality of the census, concluding that it is quite high. Twenty papers deal with Chinese population trends and characteristics, age structure, fertility and mortality, household composition, and comparisons of 1982 results with China's 1953 and 1964 censuses and those of other countries. The volume is a valuable contribution to the growing number of English language sources of information on Chinese demography and an essential reference for anyone working with the 1982 Census.

—T.M.

REPRODUCTIVE RIGHTS AND WRONGS: The Global Politics of Population Control and Contraceptive Choice, by Betsy Hartmann. New York: Harper & Row, 1987. 368 pages, paper $10.95. ISBN 0-0609-6171-6.

This thoroughly researched critique of the international population establishment concentrates on the "wrongs" committed in the name of family planning. Separating herself ideologically from the prolife faction, whose hidden agenda, Hartmann says, is to keep women home bearing children, and from the family planning movement she views as elitist and coercive, the author calls for a genuine prochoice alternative: improving the status of women.

Hartmann refutes what she terms the basic assumptions of the "population control" ideology through country case studies and a revisionist look at the demographic transition. She concludes that (1) population growth is a symptom, not a cause, of development problems; (2) improvements in living conditions and women's status, not family planning, promote smaller family norms in the Third World; and (3) family planning cannot be delivered in a top-down, technocratic fashion but should be part of a broader health system and should emphasize safety over contraceptive efficiency.

The book also provides an interesting slant on the major organizations and individuals in the international population establishment and a short history of population policies. Hartmann notes that, since the discovery of "women" as an issue during the 1970s, current policies are addressing the problems of women's status. But she feels that approaches tried thus far, such as home-based income generating schemes, only add to the burden borne by Third World women. She is also uncomfortable with the incorporation of family planning education into these development efforts.

Improve the status of women through comprehensive social and economic development, and, the book argues, the population "problem" will cease to exist. This, argues Hartmann, is the only ethical and viable solution.

—M.K.

100 PREDICTIONS FOR THE BABY BOOM: The Next 50 Years, by Cheryl Russell. New York: Plenum Press, 1987. 249 pages. $17.95. ISBN 0-306-42527-0.

The most popular analyses and projections of the American people published recently are Bryant Robey's *The American People* (1985) and John Naisbitt's *Megatrends*. Targeting an even more specific subgroup, Cheryl Russel, editor-in-chief of *American Demographics*, has contributed this lively, informative, and thoughtful list of predictions for that segment of the American population born between 1946 and 1964.

These—the famous baby boomers—constitute one-third of the U.S. population. Granted that this population has received a great deal of attention in the popular press—ranging from the marriage prospects for its 30-and-over females to the affluent life styles and child care needs of its married cohorts—this work is useful for its compilation and presentation of statistics, trends, and insights.

Russell's succinct historical overview begins at the close of World War II. Her attention to detail extends to advertisements from *Life* magazine that may have helped foster in women the postwar American dream of husband, house, and baby—a dream that would provide a fertile ground for the coming baby boom.

Chapters include discussions of the labor force and earnings (which will be closely associated with marital status as the two-income family becomes an economic barometer of affluence), life styles, consumer trends, religious beliefs, old age, and death. (There is no discussion of the more sensitive issues of our times—AIDS and alternative life styles.) All of the topics discussed are well documented by traditional and respected sources.

True to her book's title, Russell doesn't hesitate to make predictions, among them that only 6 in 100 baby boomers will achieve the "ideal" family of a lifetime marriage with two children, a boy and a girl; that many baby boomers will be cared for by their nieces in old age; and that married baby boomers will be the affluent in coming decades, while single baby boomers will be the poor. Whether or not one agrees with her forecasts, Russell has contributed food for thought for anyone who belongs to and/or wants to understand a numerous, influential, and aging generation.

—D.D.

IRAN

Population (mid-1987 est.): 50.4 million
Land area: 636,363 sq. miles
Births per 1,000 pop.: 45
Deaths per 1,000 pop.: 13
Rate of natural increase: 3.2 percent
Total fertility rate: 6.3
Infant mortality rate: 113 (infant deaths per 1,000 live births)
Life expectancy at birth: 57
Capital: Tehran

by Nazy Roudi

Iran is the second largest country in the Middle East and is geopolitically situated between Asia and Asia Minor, guaranteeing its strategic importance throughout history. Because of limited rainfall, less than 30 percent of the land area is cultivable, and only 12 percent is usually under cultivation. Cereals (wheat, barley, rice), sugar beets, cotton, tea, and tobacco are the chief crops.

As Persia, Iran is one of the oldest civilizations in recorded history and has a continuous national history of almost 3,000 years. Zoroastrianism, the ancient Persian religion, was superseded by Islam following Arab conquest in the 7th Century. At the same time, large numbers of Arabic words entered the Persian language, which is still written in Arabic script, although it belongs to the Indo-European family of languages.

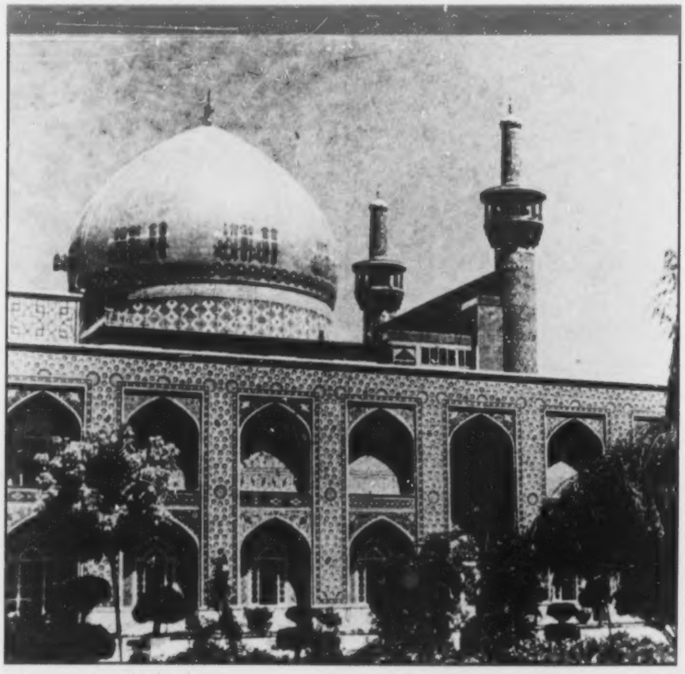
Today, more than 98 percent of the population is Moslem (93 percent Shia Moslem) and the remaining, in the order of size, are Christian, Jewish, Zoroastrian, and Bahai, whose religion originated in Iran in the 19th century. Islam, spreading along the trade routes of the Old World, did not reach the southeast region of Iran, where a large number of Zoroastrians still live.

During the early 20th century, the country gradually gained independence from its neighbors, the USSR and Turkey, started to exploit petroleum reserves, and began a process of modernization. (The official name, Iran, was decreed in 1935, replacing Persia.)

With the Islamic Revolution of 1979, the modernization process yielded to Islamic traditionalism. Women have been affected the most. Not only does the implementation of Islamic tradition mean low job opportunity and motivation for continuing education among women, but it also dictates personal behavior and appearance. Polygamy is legal, and the government encourages men to marry the widows of the Iran-Iraq war. However, this is not a socially accepted phenomenon.

Iran's fertility remains high. The present government is satisfied with the current rate of population growth and does not endorse any policy to reduce the rate. The practice of birth control by individuals and family planning activities, if implemented within the framework of the Islamic laws of the country, are not restricted. Abortion is illegal. Mortality, which fell substantially after World War II, has not continued its decline and is higher in urban areas than rural.

A 10-year gap between life expectancy of men and women, in favor of men, has, however, disappeared. Now both males and females have about the same life expectancy at birth. (The Statistical Centre of Iran recently reported that the country's population is growing at 4 percent per year and could grow from 50 to 60 million in the next five years.) At present growth rates, the population would double in 21 years. The UN projects that Iran, already the 21st largest national population in the world, will become the 15th largest, with 97 million people by 2025. Further, Tehran, the 20th largest city in 1985, is projected to be the ninth, with 13.6 million people, by 2000.



Mosque at Méched.

POPULATION TODAY

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U.S. Bureau of the Census

Census '90: Less data to input?

PRB A publication of the Population Reference Bureau, Inc.

FROM THE EDITOR'S DESK

Will it never end? Yuppieness, that is. In the U.S., "Yuppie" stands for Young Urban Professional, but during the 1980s Yuppie-ness has for better or worse come to stand for an age of aggressively acquisitive, ill-mannered me-first-ism (a Baltimore Orioles usher recently advised a writer not to come to baseball games on Friday nights because it was "Yuppie night").

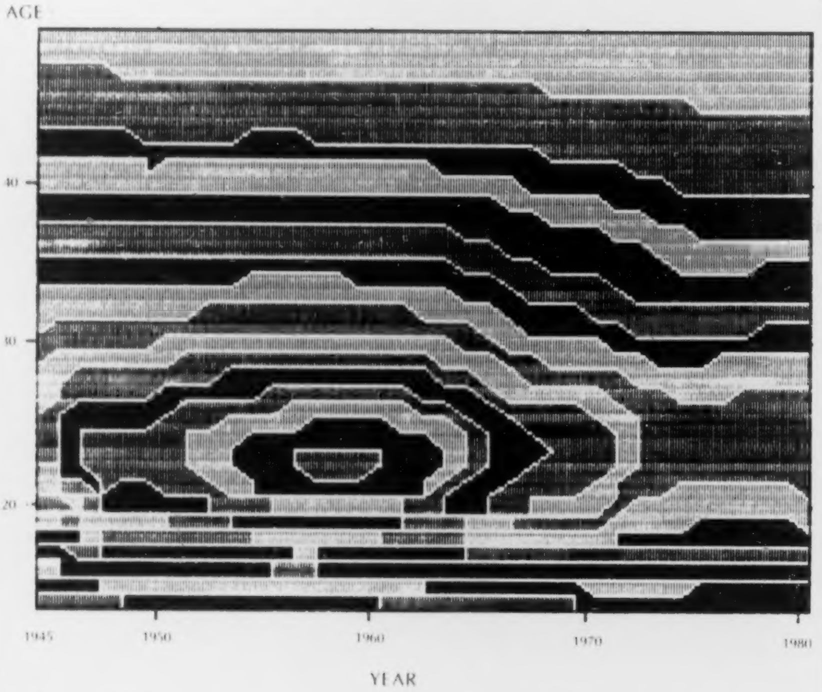
But all is not well in Yuppiedom. Yuppies have shown signs of trying to break out of their condition by: professing indifference to social and economic self-advancement; acquiring conspicuously proletarian tastes (e.g., attending professional wrestling contests); showing sudden interest in social issues; and generally feigning un-Yuppiness.

Nothing lasts forever; someday the reckoning will come, complete with solemn tribunals of inquiry: Where were *you* during the Yuppie Era? And complete with pleas from the Dock: All I did was sign a few petitions ... [or] I don't recollect being part of it, at that point in time ... [or] I was never a member – look at my Hawaiian shirt ...

— *Art Haupt*

SPEAKING GRAPHICALLY

A Fertility Relief Map



Above is a LEXIS map showing the age-specific contours of U.S. cohort fertility from 1945 to 1980. The map is three-dimensional, age groups ride up the Y axis, while fertility bulges outward. The contours on the above are logarithmic, building to a "mountain peak" of baby boom era fertility – 261 per 1,000 live births per woman in the 20-24 age group in 1957.

POPULATION TODAY

VOL. 15, NO. 10 **October 1987**

POPULATION TODAY, the newsmonthly of population and demography, is published 11 times a year (a combined issue in July/August) by the Population Reference Bureau, Inc., founded in 1929, a nonprofit organization engaged in the objective dissemination of population information. The views and opinions of POPULATION TODAY's contributors are their own and do not necessarily reflect those of PRB.

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Back Issues: Back issues of POPULATION TODAY and its predecessor INTERCOM are available in limited quantities from PRB for $2.00 per copy.

Mailing: Printed in Washington, D.C. Mailed nonprofit postage rate in the United States; printed matter surface rate to Canada, Mexico, and to foreign subscribers.

Address Changes: Send current PRB address label and new address; please allow eight weeks for change.

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ISSN 0749-2448

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OMB Challenges Census Questions

The Census Bureau's decade-long journey toward the 1990 Census hit an unexpected pothole on July 24, when the Office of Management and Budget (OMB) abruptly challenged the necessity for nearly half the questions on the census form, whose final draft was scheduled to be tested in the 1988 dress rehearsal.

In a meeting with Bureau officials, the OMB cited the unnecessary paperwork burden on respondents of many questions, and claimed that data generated by these questions were available from other sources, or would not serve important purposes, or were not required uniformly across the nation, or were not needed at highly localized geographic levels.

According to reports, the OMB staff said the questions "should be" eliminated, though later the agency said its position was that the questions were simply under review.

About two-thirds of the 30 questions questioned by OMB involved housing, the rest included three employment questions and questions on commuting, migration, and children ever born.

The 1988 dress rehearsal for the 1990 Census is slated to be an exact pretest of Census Day (April 1, 1990), including identical questions: 17 questions on the short form and 61 on the long form. The short form will go to the entire country's projected 96 million American households; the long form goes to a one-sixth sample of American households – an estimated 16 million. (In 1980 there were 19 short-form questions and 65 long-form questions.)

According to Wendy L. Gramm, Administrator of OMB's Office of Information and Regulatory Affairs, the Census Bureau had never provided sufficient justification for many of its census questions. In her testimony, she calculated "the total cost to the public in time and effort" of filling out the census form at $450 million (measured at $15 per respondent per hour).

The OMB, the executive agency that assists the Office of the President in running the sprawling Executive Branch, is responsible for administering the Paperwork Reduction Act of 1980. Their enhanced authority over all government forms emanates from that legislation. The OMB had stated previously its statutory interest in limiting the nation's paperwork burden. But no one at the Census Bureau ever imagined that the census questionnaire, always the hallowed touchstone of the decennial-census operation and as such years in preparation, would be summarily edited in the same manner as garden-variety government forms.

The questions for the decennial census were first tested in 1985, and retested in 1986 (the National Content Test) and again in 1987. The questions were developed with the help of 65 public meetings nationwide, while U.S. government interagency working groups and the Federal Agency Council on the 1990 Census assessed government data needs. As chair of the Council, the OMB was involved during all of this process.

In March the Bureau submitted the subject areas of its questions to Congress. On May 14, a joint House-Senate hearing was held to review the Bureau's proposed subject matter for 1990. Representing OMB at that hearing, Administrator Gramm did not voice any objections.

In June, the Bureau submitted the questions to OMB. When, in a July 24 meeting with Bureau officials, OMB first conveyed its concerns about the Dress Rehearsal questions, Census Bureau officials were thunderstruck. There had been no indication earlier that such an action was contemplated.

Census announced afterward that the OMB had asked that roughly 30 questions be dropped from the 1988 Dress Rehearsal.

(According to Gramm's testimony, the reason OMB did not object earlier was that "only in mid-June did we have our first opportunity to see the proposed 1990 Census questionnaires and sampling plan packaged in their entirety.")

The OMB announcement caused consternation in the ranks of census data users, who had had no idea that OMB and the Paperwork Reduction Act could impinge on the decennial census. It also made an instant population celebrity of Gramm, who was formerly Director of the Bureau of Economics at the Federal Trade Commission and who came to OMB at the same time as new, post-Stockman OMB Director, James Miller, in 1985. She is married to Sen. Phil Gramm (R-Tex.).

Wide World Photos

OMB's Wendy L. Gramm

Reactions

The reactions of Census Bureau staff and data users came to a head on Aug. 7, at a special one-day meeting on the subject held by the House-Senate Joint Economic Committee, Sen. Paul Sarbanes (D-Md.), chairman. There Gramm defended OMB's move. She acknowledged that the decennial census "is an essential source of data that enable all of us to measure changes between decades in the makeup and living conditions of the American population." But she also maintained that it "imposes a significant burden on the American public."

The OMB was simply carrying out its legislative mandate, said Gramm. The Bureau had not submitted any documentation to support the need for its census questions. But contrary to popular belief, she said, all that the agency has done so far was to raise questions. "No decisions were, or have yet been, made." But she cautioned the committee that the other witnesses it would hear would argue "for data that

Continued on page 8

Canadian Backlash on Refugees

A political storm over refugees is brewing in Canada, one of the world's last significant destinations for immigrants and refugees.

In 1980, the number of aliens asking for Canadian asylum was only 1,800. By 1986, some 17,000 aliens claiming refugee status were admitted, and 30,000 are expected in 1987. At the same time, some 115,000 immigrants were admitted in 1986, giving Canada an immigration rate of 4 per 1,000 – considerably more than the U.S.'s 2.6.

The controversy over immigration comes at a time when Canada is conducting a major three-year review of the effects of demographic change upon its society.

In August, Conservative Prime Minister Brian Mulroney asked for Parliament to be called into special session to draft legislation that would tighten immigration laws. Under the proposal, refugees with no credible claim could be expelled (rather than allowed to remain for years during the lengthy course of the appeals process). Criminal penalties for those who smuggle in illegals would also be made harsher.

Critics say such proposals would also bar entry of legitimate refugees. But public opinion has reportedly turned against political immigrants and refugees because of incidents like the landing last July of a boatload of 174 Sikh immigrants from India on a lonely Nova Scotia beach – incidents that were depicted in near-invasion terms by some Canadian media.

The captain of the ship carrying the Sikhs pleaded guilty to violating immigration laws and was sentenced to one year in prison.

Some Canadians argue that the country needs the immigrants for economic and social well-being. They cite the country's low total fertility rate (an average of 1.7 lifetime children per woman, slightly lower than the U.S.'s 1.8) as argument that the country's population is aging and could benefit from an infusion of skilled labor.

– A.H.

Call for Visiting Scholar

Applications are invited for the PRB Visiting Scholar Award for the nine-month period beginning September 1988.

The recipient of the Award, made available under a grant from the Andrew W. Mellon Foundation, will be expected to spend at least nine months at PRB's offices in Washington, D.C., carrying out a population-related project of either U.S. or international focus. Priority will be given to policy-oriented projects that attempt to synthesize work on a particular topic (including the scholar's own contribution). Proposals for new research activities will also be considered.

Interested individuals should forward a brief description of their planned activities together with a curriculum vitae and a sample of recent publications. Applicants are asked to submit a brief estimate of their transportation costs and salary requirements; the negotiable stipend is comparable with academic salaries, and includes the cost of transportation to and from Washington, D.C. Applications combining the fellowship with a sabbatical leave are encouraged. The 1987-88 PRB visiting scholar is Dr. George J. Stolnitz, a professor in the Department of Economics at Indiana University. During his nine months at PRB he will continue his research on the role of technological change on improving mortality trends in less developed countries.

Deadline for applications is Dec. 15, 1987. Announcement of awards will be made on Feb. 1, 1988. Send applications to: Dr. William O'Hare, Population Reference Bureau, Inc., 777 14th St. N.W., Suite 800, Washington, D.C. 20005. Telephone 202-639-8040.

PRB Internships

The Population Reference Bureau, Inc., is offering internships for Summer 1988 at its offices in Washington, D.C.

PRB internships provide an opportunity for persons with a strong interest in population to work under the supervision of professional demographers on a wide range of national and international issues. They work with PRB's professional staff on specific projects and assist on publications.

Summer interns usually work 35 hours a week for which they receive a stipend. They generally work from May or June to August or September.

Both undergraduate and graduate students are eligible. Some population-related course work is useful but not a prerequisite.

Interested individuals should forward a letter of application to the address given below describing their completed academic studies, future academic plans, interests in the field of population, and any additional information that supports their candidacy. Three letters of recommendation should be sent separately.

Deadline for applications is Feb. 1, 1988. Announcement of awards will be made on Mar. 1, 1988. Send applications to: Dr. William O'Hare, Population Reference Bureau, Inc., 777 14th St. N.W., Suite 800, Washington, D.C. 20005. Telephone 202-639-8040.

California's New Students

California's school system faces new challenges of growth and ethnic diversity in the state's student population.

Education is becoming an ever more crucial element in employment and the health of the economy.

Public education accounts for some 55 percent of California's budget expenditures, with elementary and secondary schools absorbing over 40 percent of the state budget. After years of tax revolts, California committed an additional $1 billion to education in 1983. But it is not clear if the state will increase funding or be sidetracked by divisive debates over such educationally related issues as bilingual education.

Nevertheless, as a new PRB report on the state's education system points out, California's population is growing and changing. The number of Californians age 3 to 24 enrolled in school is expected to increase almost 50 percent between 1980 and 2030. Largely as a result of immigration, by 1990 Anglos will no longer comprise a plurality of the school-age population; by 2015, there will be more Hispanic than Anglo students and more Asian than black students.

In addition, as immigration's role in population growth increases, the population of the state will increase more rapidly than the U.S. population as a whole. (California accepts over one-third of all immigrants to the U.S.) How the state educational system copes with these questions will help determine the success of its students, and ultimately, the success of the state.

Population Change and California's Education System, by Leon F. Bouvier and Philip L. Martin, 64 pages, is available from PRB at $10 per copy. Orders of $20 or less must be prepaid and include $1 for postage and handling.

Correction

The two photographs of the University of Jyväskylä that appeared in the September 1987 *Population Today* were incorrectly attributed. They were taken by Charles Calhoun of the Urban Institute. *PT* regrets the error.

SURVEY REPORT

Haiti

UNICEF/Matheson

Haiti, with a population of 6.2 million, remains one of the poorest, most densely populated nations in the Caribbean. Fertility is also among the region's highest, and a 1983 Contraceptive Prevalence Survey has not offered any evidence of decline.

As in many Caribbean island nations, there are several types of conjugal unions, and childbearing often occurs outside a legal marriage. The 1983 survey of 4,321 women age 15-49 found over half of the women in fairly stable unions (23 percent married, 31 percent cohabiting) and 9 percent in less stable unions. Women in more stable unions tend to have more children; thus the prevalence of the various types of union has a direct bearing on fertility.

The percentage of women married or cohabiting appears to have increased since the 1977 Haitian Fertility Survey, and overall fertility may have increased as well. In 1977 Haitian women were having, on average, a total of 6 children, while the 1983 survey recorded an adjusted average of 6.2 children per woman. Women who said they did not want more children increased from 42 to 48 percent, however.

One of the reasons fertility may have increased since 1977 could be the decline in family planning revealed by the 1983 survey, from 14 to 7 percent for women in union. Part of the decline is explained by the fact that, unlike the 1983 survey, the 1977 survey included abstinence and douching as contraceptive methods – used by 4.5 percent of the women in union – and by the disruption of the supply of certain methods due to severe economic problems. However, the survey showed a lower percentage of women using traditional methods like withdrawal and rhythm as well as supply methods like the pill and condoms. Female sterilization increased slightly between 1977 and 1983, from 0.2 to 0.7 percent. The survey report cites worry about health problems associated with the pill and IUD as another reason for the downturn in use of those methods.

Women who had some secondary education were two to three times more likely to use contraception than other women, and urban women had use rates twice as high as rural residents. Ten percent of the formally married women and 7 percent of the women in "noncohabiting unions" used family planning compared to only 4 percent of the women living with a partner outside of marriage.

Haitians have one of the highest infant mortality rates in the Caribbean region, estimated at 107 deaths per 1,000 births in 1987, largely because of poor sanitation and limited access to health services. The majority (77 percent) of Haitian mothers surveyed had given birth at home rather than in a hospital or clinic. Although some 63 percent had received some prenatal health care, only 22 percent sought postnatal care. But over 90 percent of the mothers breastfed their babies, providing them with good nutrition and some protection against infections, and over 80 percent of the children over age 5 had been vaccinated against the major childhood diseases.

– M.K.

DEMOGRAPHER'S PAGE

Recounting the USSR's Population Debate

by Murray Feshbach

This Demographer's Page is an adaptation of part of the author's monograph, "The Soviet Population Policy Debate: Actors and Issues," Rand Note (N-2472-AF), Santa Monica, Calif.: RAND Corporation, December 1986. 86 pages.

The 1959-1970 intercensal period was the first in Soviet history that reflected only normal demographic developments. Realization that disturbing trends could no longer be blamed on catastrophes opened the way for debate on how demographic processes might be not just forecast but influenced or managed.

In a context of sharp regional differences, this inevitably raised the question of unified versus differentiated demographic policies: the unified policy being content with the differing levels of fertility in the 15 republics, the differentiation policy calling for differentially concentrated efforts to raise fertility in the republics with lowest fertility (which lie in Europe proper).

Early Debate

Policy issues arose in May 1968 at a meeting held in Cheboksary in the Chuvash Autonomous Republic. The conference was nominally addressed to regional characteristics of the population but in actuality dealt also with national issues. A speech by D.I. Valentey (head of the Center for the Study of Population Problems of Moscow State University) was a precursor to later arguments about unified versus differentiated policies. Valentey described population policy as an element of overall socioeconomic policy, the principles of which should be identical for all republics. However, he said, to accommodate regional preferences and factors,

> Demographic policy can be differentiated in accordance with the characteristics of individual areas depending on concrete situations. It encourages births. [But] it is an influence for their reduction in some cases, or for stabilization in others. This, needless to say, does not signify and must not signify interference by the state in the free exercise of the will of families with respect to childbearing.

In 1973 V. Perevedentsev (Institute of World Trade Union Movements) underscored the regional differentials. In an article he stressed the importance of demographic behavior in Central Asia and Azerbaydzhan – the high fertility republics with their Muslim origin and traditional large family orientations.

In May 1975 B.T. Urlanis (Institute of Economics, USSR Academy of Sciences) wrote in a political-economic journal that it was "now necessary to switch to a more active demographic policy of stimulating fertility," which "must be differentiated, i.e., local, regional, zonal, and so forth especially in such multinational states as the Soviet Union."

Urlanis advocated payment of a child-care allowance beginning with the second child, a year-long postpartum leave, expansion of child-care institutions, and an increase in demographic propaganda, among other incentives. Much of this list has now been adopted (although only partial pay for the year's leave is currently authorized for women).

By February 1978 Valentey apparently felt strong enough as an advocate of differentiation to provide a thorough review of the "exacerbation of the demographic situation, such as the fall of the crude birth rate, slowing of life expectancy growth, and labor shortages in certain areas."

In the current period, he said, more attention could be paid to "problems which make it especially urgent to improve the 'quality of the population,'" a situation he linked to the high rate of population growth in Central Asia and the low rates in the European part of the country. He also noted that low female labor-force participation rates, as well as the fact that the young people from the Central Asian region would provide nearly all of the increase in labor resources during the following five-year plan periods, must be taken into account.

Unified vs. Differentiated

However, Ye. Manevich (Institute of Economics, Academy of Sciences) strongly and flatly opposed any differentiation in policy among the republics of the USSR. Explicitly citing statements advocating a differentiated demographic policy by Urlanis, A. Ya Kvasha (Center for the Study of Population Problems, Moscow State University), and G.I. Litvinova (Institute of State and Law, USSR Academy of Sciences), he made the following rejoinder:

> To us it appears that the theory of differentiated demographic policy is wrong in principle. First, it contradicts the general principles of the Leninist nationality policy. I want to remind the advocates of a differentiated demographic policy about the response of Comrade [Party Chairman] L. I. Brezhnev to the question put by the correspondent of the French newspaper, *Le Monde*: "Do you think that the accelerated growth in the nationality republics can bring about certain structural changes?" L. I. Brezhnev responded: "As regards the growth of the population in one or another republic of our country, this phenomenon does not disturb us. On the contrary, it makes us happy."

Several months later in 1978 a book in the Russian language by a Kazakh demographer, M. B. Tatimov, appeared in Alma-Ata. Like Manevich, Tatimov was very unhappy with any proposals for a differentiated policy. He argued that "a differentiated population policy is by its nature and intent the same thing as a discriminatory policy." *Discriminatory* is not a word one usually sees in the Soviet press about the implications of a particular policy. (Tatimov

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continued the discussion even after the 1981 Party Congress that adopted differentiated policies.)

In September 1979, at the Demographic Section of the Moscow House of Scientists (a group that had been meeting since 1964), Chairman Urlanis again referred to the unified versus differentiated policy debate. He noted that while in principle, policy can be unified for the country as a whole, for some measures it can be differentiated on the basis of three criteria: (1) parity (order of birth), (2) type of settlement (urban vs. rural), and (3) birth intervals.

He advocated measures aimed at raising the birth rate and also reducing the intervals between births. V. I. Kozlov of the USSR Academy of Sciences' Institute of Ethnography agreed that policy could be unified but argued that it must be designed to have differential effects and that it should stimulate the birth rate in low fertility republics.

Urlanis returned to the fray in an article published in January 1980 in the journal of the Academy, advocating efforts to raise birth rates in low fertility regions and reduce mortality in high fertility regions. The latter point may be related to high infant mortality in Central Asia and fetal wastage during pregnancy. With reduction in infant mortality, perhaps the population of the region would seek to have fewer children.

Tatimov, the Kazakh demographer whose 1978 book argued against any differentiated policy, returned to the attack in mid-1980 in the local press. Using the local Uighur-language newspaper to contrast Soviet and Chinese treatment of the Uighurs, he denounced Chinese attempts to reduce Uighur numbers in contrast to the praiseworthy policy of the Soviet Union.

In a Kazakh-language newspaper issued in October, he advocated continuation of the Kazakh tradition of having many children; he was disturbed by the trend toward limitation of family size. Litvinova, a vocal member of the differentiated-policy school, again published in her institute's journal an article advocating a regionally differentiated policy as practiced in the multinational Yugoslavian republics.

Reference to regional population differences took an interesting twist later in 1980, when regional leaders began to cite population trends as the basis for seeking more resources. Whether any of these appeals succeeded is almost beside the point. It is remarkable enough that officials were now using their region's population developments to attempt to influence central policymakers.

The 1981 Party Congress

The Basic Directions of the 11th Five Year Plan, proposed for approval at the 1981 Communist Party Congress, were published in the press in December 1980. The proposals referred to increased aid to families with children and to newlyweds, improvements in housing and living conditions, better and more child-care institutions, improved working conditions and everyday services for women, expanded use of part-time work and work at home, and introduction of partially paid leave for women to care for children. All these had been issues for demographers and planners for years, but their inclusion in party and governmental discussion was a major step forward.

After hearing Chairman Brezhnev speak, the Congress adopted many of these policies to stimulate the birth rate, introduce payment for first and later children (starting with the northern reaches of the Russian Soviet Federated Socialist Republic, then the rest of the Republic, then all republics but the southern ones, and finally the southernmost tier of republics, though only in November 1983), encourage migration from labor surplus to labor-deficit regions, and so forth.

At a post-Congress conference in April 1981, jointly sponsored by the USSR Academy of Sciences' Scientific Council on Socioeconomic Problems of the Population and the USSR Ministry of Higher and Specialized Secondary Education's Population Section, national demographic policy was depicted as a combination of four approaches: (1) It is part of social policy; (2) the family unit is the focus for future demographic policy; (3) demographic policy is concomitantly part of overall state policy and regional differences; and (4) the measures to be adopted must be integrated with other measures.

Again the words are familiar. This formulation defers to the principle of a unified policy by noting that demographic policy is part of social policy. Lenin affirmed that social policy in the USSR must be identical for all – as the defeated partisans in favor of a unified policy had argued. But in the end, the policy choice was made on the basis of pragmatism rather than preservation of "holy writ."

By June 1981, Valentey and Kvasha could write an article in *Pravda* closely paralleling the basic four points of the April meeting and reiterating its pragmatic justification for a differentiated policy:

> Demographic policy must be unified on a country-wide scale. But, of course, the package of measures used must take into account the characteristics of different regions operating on the basis of knowledge of overall patterns and trends with close consideration given to concrete, including local, peculiarities.

Differentiation Wins Out

The fight was not quite over. Writing in a Kazakh paper in August 1981, Tatimov grudgingly accepted the wording but not the spirit of the new policies. He acknowledged that "the Party has felt it necessary to take heed of the peculiarities of each republic in the demographic development of Soviet society as a whole," but he was disturbed by "a declining population growth rate for Kazakhstan in recent years."

Continued next page

About a year later, two Tadzhik authors published an article in *Vestnik statistiki* (*Statistical Herald*, the house organ of the USSR Central Statistical Administration, now called the State Committee for Statistics) that bluntly rejected the new policies. To underscore the point, they added: "This viewpoint is backed up with reference to the large families, the language barrier, and low mobility of the population of the Central Asian republics. In our view, such an approach is fundamentally wrong."

One might expect such strong statements to appear in the Central Asian vernacular press, but it was astonishing to find them in the central Russian-language media. Nevertheless, by then it was clear that the regionally differentiated policy principle had been adopted by the national government for the foreseeable future, and this principle is still being followed. ☐

Social Scientists in Austria

Some 200 social scientists from a dozen countries met at the picturesque Tyrolean village of Alpbach, Austria, July 7-11, 1987, for the Ninth Annual Dialogue Congress.

This year's theme: "Western Europe – USA." U.S. presenters included U.S. Secretary of Education William J. Bennett. Prof. Josef Schmid, chair of the Demography Dept. at the University of Bamberg, Germany, discussed the history of European immigration to America. PRB's Alex von Cube made a presentation in the cultural forum, "The Reception of Modern European Culture in the United States" on the changed immigration picture in the U.S. over the past two decades since the Immigration and Nationality Act Amendments of 1965.

Organized by the Austrian College, the Alpbach Congresses have achieved international prominence as forums for the interchange of political, cultural, and economic ideas.

–*A.H.*

OMB Challenges Census Questions

Continued from page 3

will cost them little or nothing. It is our [OMB's] job," she concluded, "to assure that these needs justify the costs and burdens imposed by the census, and that alternative, less burdensome or costly data collections do not exist or are not feasible."

The other witnesses testified in favor of retaining the questions. Typical was the testimony of Joseph W. Duncan, the chief statistician of Dun & Bradstreet and from 1974 to 1981 an OMB official responsible for OMB's statistical policy. Duncan told the committee that "there is sufficient justification for most, if not all of the questions"; he specifically cited the employment and transportation questions, and summarized that "many marketing, planning, and investment decisions of U.S. businesses would be less effective without such information."

Aftermath

Since the August hearing, the Census Bureau has supplied OMB with documentation to support its choice of questions. This material includes citations of federal programs which need the census data to carry out their legislated programs; results of the field tests; and a description of the consultation process with governmental and citizens' groups by which the content was developed.

On two occasions in August following the hearing, Bureau officials have met with OMB staff to brief them on the kinds of statistical and enumeration issues that confront the Bureau. For example, the possibility of shortening the census form by asking different questions on different forms (a suggestion originally floated by OMB) brought up cross-tabulation problems. (As a hypothetical example: If a sample population answered an abbreviated census form containing only income questions, while another sample population answered a different form containing only home-heating-type questions, it would then be impossible to tabulate any correlation between home-heating data and level of income data, because the data would have come from two independent groups.)

In the Aug. 25 *Federal Register*, the OMB reiterated its concerns regarding the census question burden, and acknowledged that it had received substantial public input. Indeed, census data users did seem to be galvanized, and hundreds of letters of comment were reportedly received by OMB.

POSITIONS / PROFESSIONALS

Rockefeller grant

The Rockefeller Foundation is continuing its *Social Science Research Fellowships in Population Studies*. This program enables four or five fellows from the U.S. or Canada to receive appointments at selected population research and training centers in developing countries, so that they can obtain research experience in a developing country and apply their training to population issues in a Third World setting. A fellow may be asked to teach a course in his or her special area of interest as well. The appointment is for two years.

The Foundation is especially interested in scholars who have long-term career interests in university-based research and training, as well as an interest in population and development interrelations. French or Spanish language ability is desirable. An ideal candidate would already have a faculty appointment and be able to obtain the necessary leave of absence. The Ph.D. degree must have been completed by the time the fellow leaves for his or her post.

Applications must be submitted by Dec. 31, 1986; for further information, contact: Fellowship Office, Rockefeller Foundation, 1133 Avenue of the Americas, New York, N.Y. 10036.

The statistical story has made the media. The *Washington Times* headlined the Census Bureau as an expensive "busybody," while noting the responses of such users as Raymond C. Scheppach, director of the National Governors' Association, who suggested that Congress obviate this kind of dispute by amending the Paperwork Reduction Act to exempt the decennial census.

By statute, the OMB must issue a decision on the census questions by Sept. 15 (90 days after submission of the item under review).

Meanwhile

All this is happening with only 2½ years to go before the 1990 Census. But while 2½ years may seem like a long time, the Census is an enormous undertaking.

The Dress Rehearsal census trial is scheduled for Spring 1988 in three sites: St. Louis, Mo.; Columbia, Mo., and surrounding area; and a collection of counties around Pasco, Wash. On April 1, 1988, the Bureau is required to submit to Congress the questions it plans to use in the actual census. During the ensuing two years the Bureau will be preoccupied with honing its address list, putting the personnel and local office infrastructure in place, and readying the postenumeration tallying juggernaut, all to be accomplished by Sunday, April 1, 1990.

The 1990 Census is currently estimated to cost $2.6 billion, and to count about 250 million U.S. residents. (The 1980 Census cost about $1.2 billion in current dollars and counted 226 million people.)

At press time, OMB had received some 600 letters commenting on the issue of shortening the census form; reportedly, the majority were from various state and local government bodies and other public organizations.

—A.H.

As PT goes to press, the OMB greatly modified its stance, partly in response to the outcry against the elimination of many questions. Only three questions will now be removed, those on utilities and home heating. More in next month's issue.

SOFTWHERE

LEXIS is a graphics software program developed to aid researchers in the analysis of large arrays of demographic data. The program creates shaded contour surface "maps" depicting plotted data patterns in three dimensions. These maps can be printed out with a screen dump (Shift-PRTSC).

LEXIS is a menu-driven program; the user can select various options: different colors, smoothing the data, and using one data set and/or taking the ratio or difference between two data sets. The user can select several interval sizes according to the type of data being analyzed; mortality, fertility, difference, and multiple intervals are also user defined.

A prime example of LEXIS output appears on page 2 of this issue. Other LEXIS examples can be found in *Population and Development Review*, Vol. 11, No. 4, December 1985, in an article by Zeng Yi et al., "Marriage and Fertility in China."

The LEXIS package consists of a program diskette that includes a sample data file and a brief manual. To obtain it, send US$15.00 to: Publications Dept., International Institute for Applied Systems Analysis, A-2361 Laxenburg, Austria.

—D.L.

POPULATION UPDATE

Estimated United States Population:

As of June 1, 1987	243,571,000
As of June 1, 1986	241,403,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1007.

Estimated World Population:

As of October 1987	5,055,000,000
Annual growth	87,000,000

Estimated by extrapolation from the mid-1987 population on PRB's *World Population Data Sheet*.

Latest Provisional Statistics for the U.S.: May 1987

	12 months ending with February					
	Number		Rate			
Item	1987	1986	1987	1986	1985	1984
Live births	3,751,000	3,761,000	15.5	15.7	15.7	15.5
Deaths	2,098,000	2,087,000	8.7	8.7	8.8	8.6
Natural increase	1,653,000	1,674,000	6.8	7.0	6.9	6.9
Marriages	2,416,000	2,425,000	10.0	10.1	10.4	10.4
Divorces	1,155,000	1,183,000	4.8	4.9	4.9	5.0
Infant deaths	38,200	39,200	10.2	10.4	10.7	10.7
Population base (in millions)			242.1	239.8	237.1	234.7

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births.

Source. Monthly Vital Statistics Report (Vol. 36, No. 5) from the National Center for Health Statistics.

TAKE A NUMBER

U.S. Ethnic Fertility:

The National Center for Health Statistics (NCHS) has reported that the number of births to American Indians and Alaska Natives rose from 36,797 in 1980 to 41,451 in 1984. Significantly higher fertility for native Americans compared to the total population is indicated by the fact that nearly one in five native births were of the fourth or higher order, twice the national average. Birth variables were associated with residence of the mother on a reservation. About 52 percent of births on the reservation were to unmarried mothers while 35 percent of mothers living off the reservation were single. Although mothers off the reservation were more likely to have begun prenatal care in the first trimester (62 percent vs. 56 percent), there was little difference in the proportion of low-birth-weight babies between the two groups. And the fertility of mothers on the reservation was notably higher, with 25 percent of their births of the fourth or higher order compared to 15 percent off the reservation.

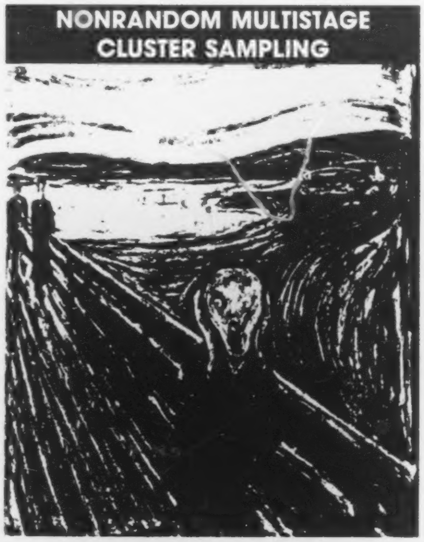
NCHS has also released its latest (1983-1984) report on Hispanic fertility. This report shows an increase in the number of Hispanic births from 336,833 in 1983 to 346,986 in 1984. (For Hispanics, 16 percent of births were fourth or higher order.) Data on Hispanic births are collected in 23 states and the District of Columbia. Overall, there were about 92 births per 1,000 women of Hispanic origin aged 15-44 in 1984, down slightly from an estimated 95 in 1980. (The national average is 65, as of 1986.)

Here and There...

Setting in the East? With much attention focused on population decline in West Germany, what of East Germany? The Democratic Republic's population has been gradually declining since 1967 (from 17.1 million to 16.6 million in 1985); this is a result of emigration, although low fertility will soon cause deaths to outstrip births . . . the U.S. infant mortality rate continued to decline, to 10.2 infant deaths per 1,000 live births in the 12 months ending with May 1987; soon the U.S. may join the exclusive club of about 20 countries with rates below 10 . . . the U.S. total fertility rate was up to 1.843 average lifetime births per woman in 1985, according to NCHS, since reaching an all-time low in 1976 of 1.738. In recent years, some of that increase can be seen in somewhat higher childbearing among women over 30, particularly the 30-34 age group. That rate went from 61.9 births per 1,000 women in 1980 to 68.5 in 1985 . . . the rate of natural increase went up in the Soviet Union in 1986 as the crude birth rate went from 19.4 live births per 1,000 population in 1985 to 19.9 and the crude death rate dropped from 10.6 to 9.7 . . . and in the midst of the "birth dearth" controversy, the crude birth rate in West Germany jumped from 9.6 in 1985 to 10.2 in 1986; it is likely, however, that some of this change is due to slight shifts in the age structure of the childbearing population . . .

—C.H.

ADDENDA



An expressionist classic, Edvard Munch's late 19th century painting "The Scream" has appeared on various psychology textbook covers.

But why should psychologists have all the fun? Many other scholarly texts are equally well qualified to sport Munch's cheery depictions: textbooks on advanced demographic statistical theory (as imagined on the left); collections of foreign-policy position papers; organic chemistry references; the Internal Revenue Code. . .

LETTER TO THE EDITOR

Your review of my new book, *The Birth Dearth*, was fair and balanced. There was one small error, however; you quote me as saying that the real culprits behind the birth dearth are "the non-reproducing white middle class." That phrase did appear in some of the early galley proofs of the book, but the word "white" in that phrase does not appear in the book itself.

The fact of the matter is that below-replacement fertility is a class, not a race, issue. Thus, after adjusting for income, black middle-class women have lower fertility rates than white middle-class women. I make this point in *The Birth Dearth*, and because the subject is such a sensitive one, I would appreciate it if you could publish this letter.

By the way, I am an avid reader of *Population Today*. It is the most informative, fair-minded, understandable publication in the demographic arena.

Ben J. Wattenberg
Senior Fellow
American Enterprise Institute
Washington, DC

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

POPULATION IN AN INTERACTING WORLD, edited by William Alonso. Cambridge, Mass. and London, England: Harvard University Press, 1987. 286 pages. ISBN 0-674-69008-7. $30.00.

As world population passes the 5-billion mark, the less developed countries (LDCs) account for most of world growth while natural increase in the more developed ones (MDCs) is approaching historic lows.

This volume, the outcome of a 1983 conference at Harvard University on Population Interactions between Rich and Poor Countries, takes as its point of departure the demographic bifurcation of the MDCs and LDCs. Editor William Alonso provides readers with a useful introduction to the volume's nine essays, which explore both the very visible and more subtle interplay of demographic variables, including international migration, refugee movements, guest workers, tourists and visiting experts.

Authors include William H. McNeill on population movements in premodern times, Aristide R. Zolberg on labor migration, Hedley Bull on population and international political structures, Alonso on changing definitions of the identity of populations, Hans-Joachim Hoffman-Nowotny on the effects of immigration on cultural identity in Europe, Juergen B. Donges on migration and trade policy, Myron Weiner on emigration from an LDC perspective, Francis X. Sutton on refugee movements, and Orlandon Patterson on population movements in the Caribbean Basin Region.

The discussion provides thoughtful and provocative insights into links between population movements and a broad range of political, economic, social and cultural issues – for example, the evolution of labor markets and political networks that cross national borders and challenge national identity and sovereignty.

Patterson's linking of migrants' motives to interventionist U.S. political and economic policies in the Caribbean basin illustrates the challenging thinking readers will encounter in the volume: "When a worker from the periphery contemplates illegal entry into the United States, he has merely adopted an attitude of nonexcludability comparable to the one that U.S. policy makers and multinational executives have held from the early part of the 19th century toward the periphery. In undercutting the national sovereignty of the peripheral states and in its refusal or incapacity to assist the region with a level of aid that would restore their economic viability, the United States has set in motion forces that now undercut the most important element of its own sovereignty, the defense of its own borders."

– Thomas W. Merrick

FERTILITY IN ASIA: Assessing the Impact of Development Projects, edited by John Stoekel and Anrudh K. Jain. London: Francis Pinter, 1986, 177 pages. ISBN 0-86187-667-9.

The 1974 World Population Conference in Bucharest launched the slogan "Development is the best contraceptive," and a multitude of people began the quest for its meaning. While the debate about the relationship between development and population still occasionally sounds like polemics from outer space, many scholars have brought the ideas back down to earth for serious, thoughtful consideration.

This book is an example of that kind of analysis – an attempt to measure development and carefully analyze the interrelationship between socioeconomic development and population growth. The volume consists of five country case studies initiated by the Population Council in 1978 plus two chapters by the editors – an overview of the country papers and a methodological review.

Each of the papers appealingly uses the same plausible (and clearly presented) conceptual framework. The authors posit that development projects have an indirect but traceable effect on fertility via changes (improvements) in families' economic circumstances which in turn affect (reduce) their demand for children which affects the proximate determinates of fertility (à la Bongaarts – age at marriage, breastfeeding, contraceptive use, and abortion) and therefore ultimately affects fertility levels.

The results of all the case studies are modest, in a statistical sense, but are in the expected direction. Yes, development does have a slight indirect "contraceptive" effect. The concluding chapter presents a clear review of why the results are as modest as they are – problems with the data and the specifications of the model. This is a clearly written, interesting book.

– Nancy Yinger

SPOTLIGHT

ARGENTINA

Population (mid-1987 est): 31.5 million
Land area: 1.1 million sq. mi.
Births per 1,000 pop.: 24
Deaths per 1,000 pop.: 8
Rate of natural increase: 1.6 percent
Total fertility rate: 3.3
Infant mortality rate: 35.3 infant deaths per 1,000 live births
Life expectancy at birth: 70 years
GNP per capita (1985): US$2,130
Capital: Buenos Aires

by Wendy Patriquin

The Argentine Republic occupies most of the southern part of the South American continent, located between the Andes mountain range and a 1,600 mile Atlantic Ocean coast line. The world's eighth largest country in land area shares its borders with five nations: Bolivia, Brazil, Chile, Uruguay, and Paraguay. Argentina is second only to Brazil in terms of land area and population size in the Southern Hemisphere.

The nation is divided into four diverse regions: The Andean mountain region, Patagonia (the windswept plateau), Pampas (the fertile heartland), and the north and Argentine Mesopotamia region (forested plains). The Pampas region provides some of the world's best land for raising cattle and growing grains. This region consists of one-fifth of the nation's land and is home to two-thirds of the nation's population.

Buenos Aires, the sprawling capital city of 10 million residents, provides the focus of national life in Argentina – so much so that the concentration of commerce, industry, and national population there is held to be a constraint on economic growth.

The capital's metro area of 1,400 square miles contains fully one-third the population of a country twice as large as Alaska. Altogether, with 84 percent of the population living in urban centers, Argentina is more urban than most other countries. Current policies call for regional development to maintain and increase population in rural areas and control growth in urban areas.

The population of Argentina is primarily (90 percent) of European descent, largely from Spain and Italy. This is in part due to the high rates of trans-Atlantic immigration to the country from the 1880s to the 1930s, and immigration from Eastern Europe following World War II. The remainder (after Indian wars of the last century) of Argentina's indigenous Indian population numbers 50,000 and lives principally in the peripheral provinces in the north and west.

Argentina has one of the lower rates of natural increase in Latin America (1.6 percent). There is concern about the infant mortality rate which has, however, decreased by 50 percent since 1970. The government has no official family planning policy.

Argentina is unique in that it is rich in resources and nearly self-sufficient in basic foodstuffs, power supply and advanced communication networks. Seventy-five percent of Argentina's exports are grains (wheat, corn, soya, and sorghum) and oilseeds (soybeans and sunflowers).

Argentina is also a major exporter of livestock and has developed its power supply in products such as petroleum, hydroelectricity, and the growing use of nuclear power. There is an extensive and advanced communication and transportation network in the country.

Early in this century, Argentina was relatively prosperous, compared to many Latin American urban areas. But the inexorable economic downturns and governmental instability have had their effect. Today, 80 percent of the value of export products is the amount due in interest on foreign debts. It appears that political conflicts and economic crises prevent the realization of both human and natural resource potential.

Inter-American Dev't. Bank

Argentina's Pampas